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ABSTRACT

This study is designed to develop a checklist of teacher competencies (TECOMP I) based on an analysis of teaching tasks in keeping with a cybernetic model, to secure and analyze critical responses to the checklist items, to relate these judgments to the characteristics of the several items, and to clarify issues regarding the construction and utilization of competency lists. Contents of this study are divided into three sections. Section 1, "The Development and Character of the Checklist," provides background information, presents TECOMP I, describes a cybernetic model of the teaching-learning process, and lists uses of the checklist. Section 2, "The Application of TECOMP I to Prospective and Present Teachers," includes data obtained from teachers who were both graduate students and supervisors of undergraduate student teachers regarding the importance of the checklist items and their placement in training. Section 3, "Conclusions and Discussion," presents a summary of major findings and some implications of the study. Appendixes include the following items: (a) "The Teacher Competencies Checklist together with Decile Rating Indicators and the Categorical Classification of the Items," (b) "Lower and Upper Limits of Each Decile," (c) "Mean Item Values in Importance and Placement Ratings," and (d) "Major Training Emphasis Prior to, During, and After Student Teaching." (PD)

ED 095125

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A GENERAL TASK-ORIENTED TEACHER COMPETENCIES CHECKLIST: ITEM IMPORTANCE AND PLACEMENT IN TRAINING AS JUDGED BY PROSPECTIVE AND PRESENT TEACHERS

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by
HAROLD H. ABELSON
THE CITY UNIVERSITY OF NEW YORK
March, 1974

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FOREWORD

To develop a checklist of teacher competencies based on an analysis of the tasks of teaching in keeping with a cybernetic model of the process of teaching and learning, to secure and analyze criterial responses to the checklist items on the part of groups of prospective and present teachers, to relate these judgments to the characteristics of the several items, and to clarify issues regarding the construction and utilization of competency lists - these are the purposes of the present study.

The study attempts to synthesize a good deal of conceptual thinking with a large amount of computer-spewed empirical data of a subjective kind. No apology is made for the heavy emphasis on conceptualization and subjectivity, for in the opinion of the writer, the subject properly calls for both.

Of special interest may be the attempt to ascertain, not only how teachers and prospective teachers regard the importance of each of the items of the Checklist, but also their judgment as to the training emphasis that should be given each competency during each of three stages in the preparation of a teacher. The findings, it is believed, may have especial pertinence to the question of the placement of foundational masteries in professional education.

For those who plan to do research related to competencies, whether it deals with teacher education or another professional field, it is hoped that the conceptualization and the procedures engendered in the present project may provide a useful prototype. Should that occur, the

writer will consider himself doubly rewarded for the extensive effort that went into the study.

Should the study prove to have merit, thanks will be due many persons. Long hours spent by the writer's wife, Lucie B. Abelson, helped to analyze the relentless product of the computer. The staff of the Lehman College Computer Center of the City University of New York were most helpful in assuring that product. The prospective and present teachers who expressed their judgments with respect to the items of the Checklist and the countless writers and researchers whose ideas went into the items included are to be thanked for providing the computer with its required input, as are the three professors at Lehman College, Professors Nathan Kravetz, Iris Elfenbein, and Ronald Manyin, under whose tutelage were the student teachers and their teacher-supervisors who served as respondents along with the writer's undergraduate and graduate students.

The writer's output, in the form of this report, was notably improved by the close and critical reading of its draft by Professor Kravetz, by Professor Edward Frankel, Director of the Lehman College Office of Educational Research, and by Dean Harry N. Rivlin of Fordham University.

Harold H. Abelson

Santa Monica, California

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I. THE DEVELOPMENT AND CHARACTER OF THE CHECKLIST

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Background

Concern with teacher competencies has been in evidence for a long time. Following a period when preparation for teaching was conducted largely on an apprenticeship basis, the determination of necessary masteries rested on the selection of theoretically pertinent subjectmatter from the disciplines of pedagogy and educational history, philosophy, and psychology. Inspired by the efficiency movement of the opening decades of the present century, students of the subject instituted job analysis techniques. Thus, the Commonwealth Fund Teacher Training Study by W. Charters and D. Waples, published in 1939 by the University of Chicago Press, listed and reported criterial judgments on over a thousand specific activities engaged in by teachers.

The growing interest in personality and in interpersonal relations may have influenced the approach employed by D.G. Ryans in his study of Characteristics of Teachers: Their Description, Comparison, and Appraisal, published by the American Council on Education in 1960. Though replete with highly statistical analyses, this study emphasized teacher qualities rather than teacher activities.

More recently attention has been directed toward teacher performance in the form of overt, specific, and determinable behavior. The overt behavioral approach has tended to subscribe to the belief, as yet unproven, that the only way to judge the efficacy of teaching is by the measurement of changes in pupils.

The contemporary movement has been marked by a plethora of attempts

to develop lists of teacher competencies. Why, then, another list?

The answer is provided in the underlying conception of the present list and in its reliance on considerable empirical experience. Other lists tend to stress either behavioral performance objectives, or characteristics of teachers, or teaching activities themselves, not to mention topical compendia based on textbook or course analysis. The present Checklist cuts across these distinctions in welcoming elements from any of these sources that seem pertinent, directly or indirectly, to the effective conduct of teaching tasks.

The second justification for the present list rests on the fact that it is the outcome of a series of pilot studies in which prospective teachers, present teachers, teacher trainers, and supervisors set down their judgments according to such criteria as importance for teaching, comprehension or mastery, application in teaching, and most appropriate period for training. Insights from the findings of the pilot studies were used in the construction of the present set of competencies.

Two preliminary reports of studies entailing the use of competency lists developed by the writer are on file with the Educational Resources Information Center ERIC of the Office of Education, U.S. Department of Health, Education, and Welfare, as follows:

1. Self Perceived Mastery of Curriculum Content and of Methods on the Part of Beginning Elementary School Teachers and Prospective Teachers at Various Stages of Preparation. (By Harold H. Abelson and Lorraine K. Diamond) Division of Teacher Education, The City University of New York, September 1967. ERIC No. 015160.

2. Analysis of Itemized Judgments Concerning the Allocation to Pre-Teaching and In-Teaching Training of Teaching Competencies, Topics

in Educational Psychology, and Psychoeducational Ideas. (By Harold H. Abelson) Report No. 72-1, Office of Teacher Education, The City University of New York, January 1972. ERIC No. 061169.

In addition, a limited number of copies of a third report are available through the courtesy of the Office of Educational Research, Lehman College, The City University of New York:

3. Teachers' Responsiveness to Selected Psychoeducational Ideas. (By Harold H. Abelson) Report No. 70-1, Division of Teacher Education, The City University of New York, January 1970.

A fourth, unreported preliminary study by the writer utilized the judgments of very small groups of prospective and present teachers and of teacher education staff as regards the importance, the mastery, suggested time placement, and proposed course placement of 420 items related to teacher competency. The responses of these several groups were consulted with particular emphasis on Importance ratings as the writer prepared the present Checklist. In effect, this list represents a selection from and adaptation of the 420-item list.

The Checklist, consisting of 150 items, is reproduced in Appendix A. It has been designated TECOMP I with the thought that its use may result in revised forms. It is intended as a general, task-oriented list of teacher competencies. The items have been grouped under five headings, and may be administered at one time or in five or fewer installments. Of course, instructions to persons who may be called upon to react to the items of the list will depend upon the purpose of its application. An illustrative set of directions is reproduced in a later section of this report in conjunction with the account of the application of the Checklist to four groups consisting of prospective or present teachers.

The Checklist and the Tasks of Teaching

As its title indicates, the items of the Checklist were selected to reflect the common tasks of teaching. The five sections of the list, each consisting of thirty items, and the teaching tasks to which they refer, by and large, are as follows:

1. Learner Objectives, Readiness, and Motivation:
   a. Determining objectives and goals, including immediate, direct outcomes and long-range, indirect goals.
   b. Ascertaining the learner's readiness for instruction and applying strategies for coping with unreadiness.
   c. Arousing and maintaining appropriately directed motivation.

2. Teacher Roles and Pupil Interaction:
   a. Choosing and acting out the various roles one may play as a teacher.
   b. Arranging for productive interaction among the pupils as they carry on their learning activities.
   c. Maintaining a wholesome classroom climate and responding with sensitivity to each pupil as a person.

3. Curriculum and Materials:
   a. Selecting, organizing, and sequencing curriculum content and activities.
   b. Selecting and utilizing curriculum aids in the form of media and materials.

4. Teaching Procedures:
   a. Planning lessons, teaching units, and an overall teaching strategy.
   b. Adapting procedures to suit the requirements of cognitive, affective, and psychomotor learning.
   c. Selecting and applying the several general teaching modes and specific instructional procedures.

5. Pupil Behavior, Appraisal, and Individualization:
   a. Managing the flow of classroom activity and controlling pupil behavior.
   b. Appraising the intellectual, affective, and behavioral characteristics of groups of pupils.
   c. Studying and handling problems of pupils with learning or adjustment difficulties.
   d. Individualizing instruction for the class as a whole.

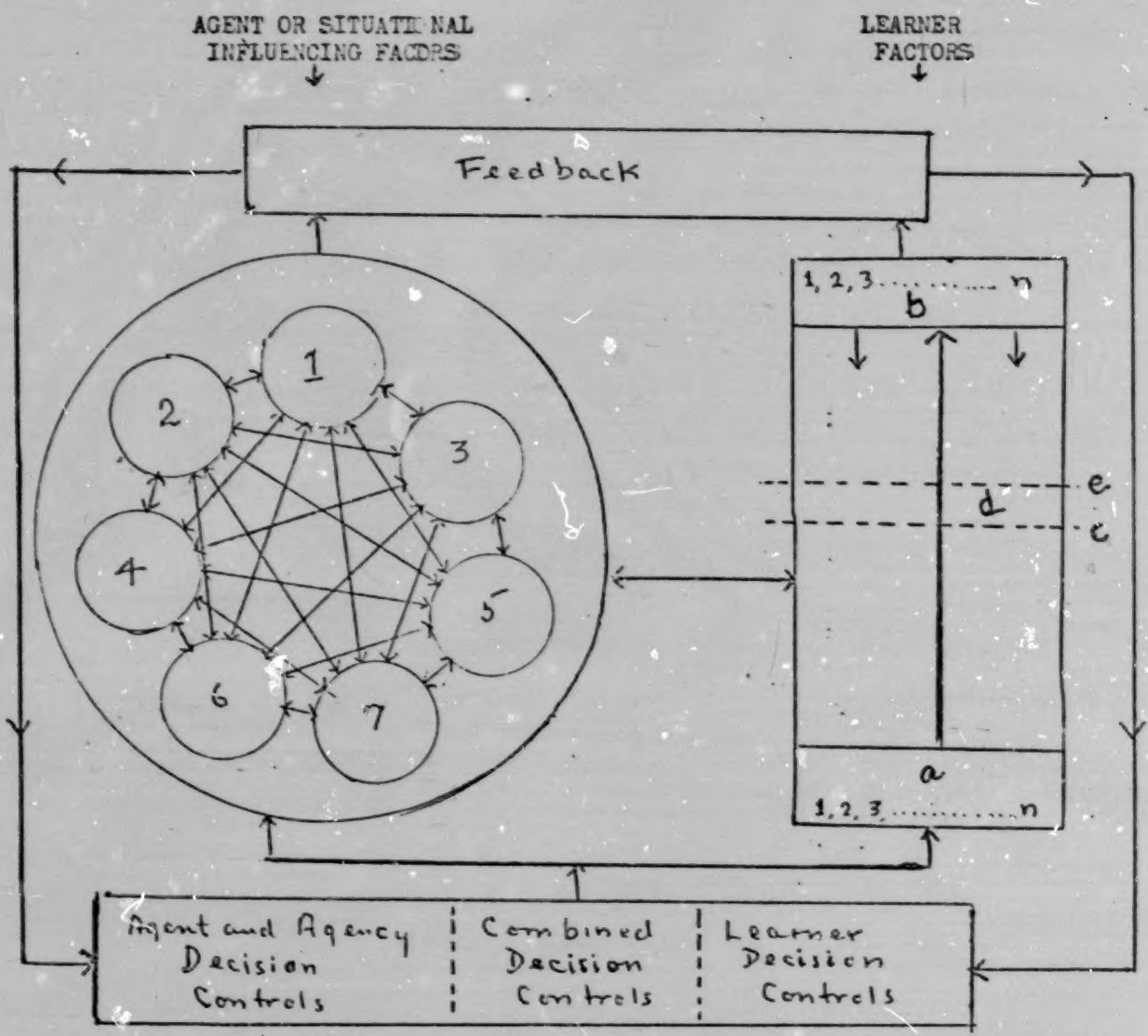
Any attempt to depict the complex work of teaching under as few as fifteen rubrics will necessarily be marked by a high degree of generality. The items of the Checklist itself are considerably more specific, but the analysis could go on and on into still greater detail. Further study and application of the Checklist may result in a closer approximation to the most fruitful level of specificity with which teaching competencies may be stated. However general or specific the statement of individual items, it would seem imperative that they be seen in the context both of an overview of the common tasks of teaching and of an encompassing model of the teaching-learning process. The presence of such frames of reference can serve not only to place the items of the Checklist in perspective, but to point up gaps in the list and help generate more detailed or particularized statements.

A Cybernetic Model of the Teaching-Learning Process

If the competency items and the tasks of teaching are to be understood in a truly dynamic sense, it is necessary to perceive them as fitting into a cybernetic model of the teaching-learning process. Such a model consists of component elements connected transactionally in some kind of organized system that manifests such characteristics as feedback and decision controls ordinarily associated with the idea of a system. Figure 1 presents diagrammatically a general model of a teaching-learning system that, while structuring one's thinking about the process, permits the introduction of a great many variations in accordance with individual points of view.

The model is essentially an elaboration of the basic phenomenon of an organism interacting with its environment.

Figure 1. THE TEACHING-LEARNING PROCESS: A CYBERNETIC MODEL



KEY:

1: Teaching Personnel
2: Curriculum and Materials
3: Instructional Procedures
4: Peers
5: School Surround
6: Familial Surround
7: Community-Cultural Surround

a: Constitutional Potentials
b: Psychoeducational Goals
c: Initial-Period Status
d: Given Period of Learning
e: End-Period Status

1, 2, 3.....n: The Several Aspects of the Person or Organism

The significance of each of the elements depicted in Figure 1 is detailed below:

1. The "learner" shown on the right is connected by a two-headed arrow with a conglomeration of influencing factors on the left. This arrow and the many other arrows within and between the several factors suggest the interactional or transactional nature of the system.

   The several factors may be considered as separated by boundaries of varying degrees of permeability. The arrows may be viewed symbolically as having varying degrees of power to penetrate the respective boundaries.

2. In the rectangle, which represents the learner as a developing and changing person, the vertical dimension refers to points in the life span of the individual. The horizontal axis, labelled 1,2,3...n, indicates an indeterminate number of psychological aspects of the human organism that may be singled out for study or that may be the object of influencing forces.

   The resultant grid provides a framework for cataloguing the fruits of developmental psychological study with particular reference to changes in status as the organism progresses through the several stages from its early constitutional potentials, indicated by the letter a, toward the hoped for achievement of corresponding, mature realizations of growth goals and objectives, indicated by the letter b.

   The upward arrows in the rectangle suggest both the direction of change and the operation of influencing factors within the individual. In a different sense, the downward-pointed arrows symbolize the role played by perceived goals, purposes, and self image in affecting the individual's development. A second meaning may be ascribed to them as well, namely as signifying deteriative forces or retrogression. In any case, these operative mechanisms apply, of course, only in terms of a present moment.

   The segment of the learner rectangle designated c, d, and e, which, it will be noted, is superimposed on the developmental chart out of scale, reflects the fact that, operationally, a teacher needs to think in terms of a specified interval in the life span of the learner to correspond with a given series of lessons or a unit. The letter c and e respectively refer to the entering and concluding status of the learner at the beginning and end of the chosen interval, while the letter d is employed to indicate occurrences during the interval.

3. The large circle at the left of the chart is intended to represent all the factors affecting the learner, other than his own makeup, that might be of concern in the educational process. The system is marked by the continual, complex transactions occurring among the factors of the environment. One possible selection and grouping of the components of the influencing environment is indicated by the seven smaller circles within the large circle.

   Each of the component circles is envisaged as a subsystem in itself with internal sets of constituent elements that interact with one another and with elements outside the subsystem.

4. The cybernetic nature of the teaching-learning system is further indicated by the presence in the chart of a representation of the feedback process. Feedback is evidenced with respect to the learner, the teaching or influencing environment, and the two in relation to one another. Strictly speaking, feedback may be considered as being incorporated in the arrows connecting each element with every other element.

5. The section at the bottom of the chart labelled decision control is likewise an expression of the cybernetic concept. It too should be visualized as operating inherently within the elements wherever decisions, or choices among alternatives, are made.

   Although decision making, resting as it does on influencing determinants, is rarely a purely individual matter, an over-simplified distinction is made between agent or agency decisions and learner decisions, while some decisions are considered as common ones.

   The effectiveness of the system depends largely on the quality of decision making, which in turn relies heavily on the adequacy of available feedback.

While each of the items of the Checklist is related to the cybernetic model in one way or another, they cannot all be neatly categorized under the several portions of the chart. By and large, Section I deals mainly with the learner, as does Section V. Sections II, III, and IV refer mostly to influencing factors. In its reference to appraisal, Section V is related to feedback. Decision making is involved directly or indirectly in all five sections. Although the items of the Checklist are presented individually, it is suggested that reference to the model may enhance their meaning.

The Checklist in Relation to Current Issues

Implicit in the form and content of any list of teaching competencies is the resolution of a series of issues.

For one thing, a good deal of heat has been generated over the question as to whether competency lists should be limited solely to behaviorally or operationally expressed performance that can be subjected to measurement. It is the writer's view, as evidenced in the Checklist, that competencies should be selected in the first instance according to their intrinsic value, as thoughtfully judged, rather than by their form. Subsequent to their selection on judged merit, efforts may be made to increase their objectivity, where appropriate, or their specificity, where helpful, or their determinability, where possible. In this regard, determinability may entail assessment of manifestations of competency that are subjectively expressed as well as objectively observed or measured.

Some of the terms used in indicating the competencies in the Checklist refer to inner states as contrasted with overt performance. The vocabulary used to describe types of mastery ranges from "awareness" and "familiarity", to "recognizing" and "delineating", to "stating" and "specifying", to "being skillful" and "applying". The use of these varied terms is partly an expression of opposition to the limitations of objective, behavioral language, but goes beyond that to reflect a view, essentially similar to that implicit in the Taxonomy of Educational Objectives: Affective Domain by D.R. Krathwohl and others, wherein a progression in learning or growth is depicted. This progression in mastery, the reader will recall, moves from an initial passive awareness of an idea or phenomenon through stages of cognition and involvement to an actional incor-

poration into one's character, personality, and behavior. Since, among other uses, the Checklist is to be used for the purpose of setting educational objectives, it is imperative that the competency statements give recognition to the intermediate stages of growth and learning with respect to given masteries. Moreover, it should be acknowledged that a briefly stated item can cover only an aspect of full mastery, whose entire flavor can be sensed only when related cognitive, affective, and behavioral phases are also envisioned.

Even when expressed in relatively behavioral language, it is apparent that few of the items in the Checklist are noted as learner outcomes or product objectives. Rather, most of the statements refer to so-called "expressive" objectives, or those that have to do with educational means or processes that point toward hoped-for effects or accomplishments. It is obvious that teacher education strives to enhance teacher competence so that pupil competence will be improved. To define teacher competence, however, solely in terms of presumed effects on pupils without referring as well to the associated teaching process deprives one of training guidelines, and in effect represents a form of circular reasoning that serves to beg the question. It is true that reference to the teaching process alone does not assure that certain results will ensue. Practically, however, one must work through process components while continuing to validate their relations with product outcomes.

As to the content of Checklist items, dogmatic adherence to one or another of the schools of psychological thought has been avoided, as has strict allegiance to any of the particularized educational philosophies. The conception of teacher roles includes but goes beyond the common range

of instructional functions. Although emphasizing a humanistic approach to teaching, it does not rule out the contributions of "scientific" educational psychology. Thus, divergent sources of ideas were freely utilized in the construction of the Checklist.

The issue as to the number of competencies to be included in a workable list relates in part to the degree of generality or specificity with which they are to be expressed. Obviously, wide areas of competency can be covered by a few broad and general statements. The more specific the statement, the greater the number of items that will be required. The present Checklist, while seeking a moderately high degree of definiteness, offers a range in specificity. It leaves to the user the option of extending or developing the list, as needed, to include additional items of any desired degree of specificity to satisfy the requirements of a particular educational setting, curriculum area, or age level.

A special issue relates to the exclusion of items, not so much on the basis of keeping down the total number, but because, though potentially significant, they are not currently understood or appreciated. It becomes evident to the experienced worker in this field that a feasible compromise has to be sought between the practical and the ideal. While a number of forward-looking masteries presently unachieved by the great majority of teachers are included in the list, certain items on previous lists, though judged important by the writer, were excluded because they were regarded as too technical or difficult to master for most respondends. In keeping with a current thrust toward practical application, the Checklist has been kept relatively light on theoretical or foundational matters. Consequently, the user will need to inquire for himself as to what background knowledge is necessary for a truly effective mastery of

any given item.

Suggested Uses of the Checklist

As to the uses to which the Checklist may be put, a distinction may made between certain immediately practical purposes and several longer-range theoretical goals.

Four main immediate applications of the Checklist may be enumerated as follows:

1. To assist persons engaged in the construction or revision of a teacher education program, or one of its phases, in deciding which objectives or outcomes to seek and what content to include.

2. To help teachers or prospective teachers in professional training or growth situations determine which masteries they may need to acquire or strengthen, thus enhancing and directing their efforts toward self improvement.

3. To serve as a source of possible criteria in the formative or summative evaluation of teacher education resource units, modules, protocols, textbooks, or other material designed to further mastery of the teaching-learning process.

4. To provide teacher certifiers or supervisors with leads as to evaluative criteria that may be employed in establishing levels of mastery, and to serve as a point of departure for developing specific indicators of mastery.

Clearly, consulting the Checklist will not offer automatic answers in attacking the above tasks; much thought and considerable interchange of views among the parties concerned will still be necessary.

Less immediate but nonetheless valuable results may be expected from the following research-related activities that utilize the Checklist in one way or another:

1. Specialists in the teaching of subject areas or in particular educational fields may employ the Checklist as an aid in formulating other checklists of competencies appropriate to their special areas.

2. After considering the nature of the several items of the Checklist from a psychological point of view, teacher educators may direct their attention to the problem as to the most effective procedures and instrumentalities for achieving their mastery.

3. The Checklist may be used as a vehicle for obtaining the judgments of various groups of educational personnel and other concerned groups as to such considerations as to the importance for teaching of the several competencies, their mastery, application, and suggested placement in training programs.

4. Analytical study of the characteristics of the several items, such as their ideational source, their technicality, and their applicational difficulty, in relation to judgments of teachers as to item importance, mastery, and application may throw light on aspects of the problem of transforming worthy psychoeducational ideas into teaching practice.

5. Researchers may employ the Checklist, or other lists derived from it, as a stimulus for examining the extent of firm knowledge and the need for further study with respect to the listed items.

6. Pattern analysis of the relationships among the items, considered both logically or psychologically and in terms of subjective reactions, may contribute to an understanding of the nature and structure of the teaching-learning process and of teacher education as subjects for further systematic, disciplinary study.

Thus, the Teacher Competencies Checklist is offered with the hope that it may prove immediately useful and also stimulative of a long-range program of study and research.

II. THE APPLICATION OF TECOMP I TO PROSPECTIVE AND PRESENT TEACHERS

Subjects and Procedures

Although the development of the Checklist of Teacher Competencies (TECOMP I) had already entailed the tryout of many of the included items, it was deemed desirable to obtain additional judgments from groups of prospective and present teachers. Utilizing the writer's undergraduate and graduate students in courses in Educational Psychology and with the cooperation of several colleagues who were engaged in an experimental program whereby teachers who were both graduate students and supervisors of undergraduate student teachers, it was possible to obtain judgments as to the importance of the Checklist items and their placement in training made by persons at various stages in the teacher education program at Lehman College of the City University of New York.

Thus, the Checklist was submitted in the Spring of 1973 to four groups of students, as follows:

1. Thirty-one (31) students in the writer's undergraduate course in Educational Psychology;
2. Twenty (20) student teachers under the overall supervision of a team of professors and individual supervsion by the "field associates" referred to below;
3. Twenty-eight (28) teachers in the writer's graduate course in Advanced Educational Psychology; and
4. Thirty-six (36) teachers serving as "field associates" in a combined supervisory training program and an assignment as supervisors of student teachers.

The first group had had but a few hours of participatory observation in an educational setting. The second group had had about a half semester of student teaching experience. The third and fourth groups consisted of teachers with several years of experience; the latter of these two groups included a number who hoped to become school supervisors.

The respondents were given the following directions for reacting to the items of the Checklist:

THE TEACHER COMPETENCIES CHECKLIST

The complexity of teaching is evident. Through pre-service preparation and in-service growth the teacher is expected to acquire many competencies. Since selective emphasis is necessary, it is helpful to know how prospective and present teachers, among others, view the several masteries that may be related to effective teaching.

So that we may have the benefit of your judgment, we have prepared a rating form on which on which you can indicate your reactions to the items on a checklist of teacher competencies. Each section of the Checklist consists of 30 items.

Column A is provided to record your judgment as to how important you regard the mastery of the item.

Column B is provided so that you may indicate the period when the main stress should be placed in preparing you for the competencies.

Please use the following keys for Columns A and B:

Column A	Column B
1: Of little importance	1: Prior to student teaching
2: Of moderate or intermediate importance	2: During student teaching
3: Of high importance	3: During the holding of an actual teaching position

Kindly respond to each item in each column to the best of your judgment. Please leave no blanks. Your contribution to this study is greatly appreciated.

By assigning numerical values in accordance with the numerals used in the response key it was possible to secure an average rating for each of the four groups, namely: 1. students in undergraduate Educational Psychology; 2. student teachers; 3. students in graduate Educational Psychology; and 4. field associates. Separate mean item values were obtained for the Importance and the Placement criteria. The average item

ratings were also determined for pairs of groups, e.g, for all undergraduates or for all graduates, and for the four groups as a whole. The distribution of the mean item values for the combination of the four groups is shown in Figure 2, separately according to the Importance and Placement criteria. In reference to the latter criterion, it should be noted that while the responses called for referred categorically to "prior to student teaching", "during student teaching", and "during the holding of an actual teaching position", values of 1, 2, and 3 were assigned respectively to the three categories as if they represented a continuous scale from earlier to later time of training.

Mean Item Values for the Total Group

Figure 2 indicates that virtually all the items were judged to be of at least moderate importance. The median rating fell at 2.60, or a little above the middle point between the intermediate and high values on the scale. The preponderance of high Importance ratings was predictable in view of the fact that the Importance rating on preliminary list tryouts was employed as a partial basis for inclusion in the present list.

Also indicated in Figure 2 is the fact that the Placement criterion mean ratings spread more widely than did those for the Importance criterion. The distribution of responses within each item as regards the Placement criterion is treated in a later section of this report, but it may be noted for the present that the student teaching period, designated by the 2 rating, is the preferred time for stressing training for a large proportion of the competencies. This emphasis was par-

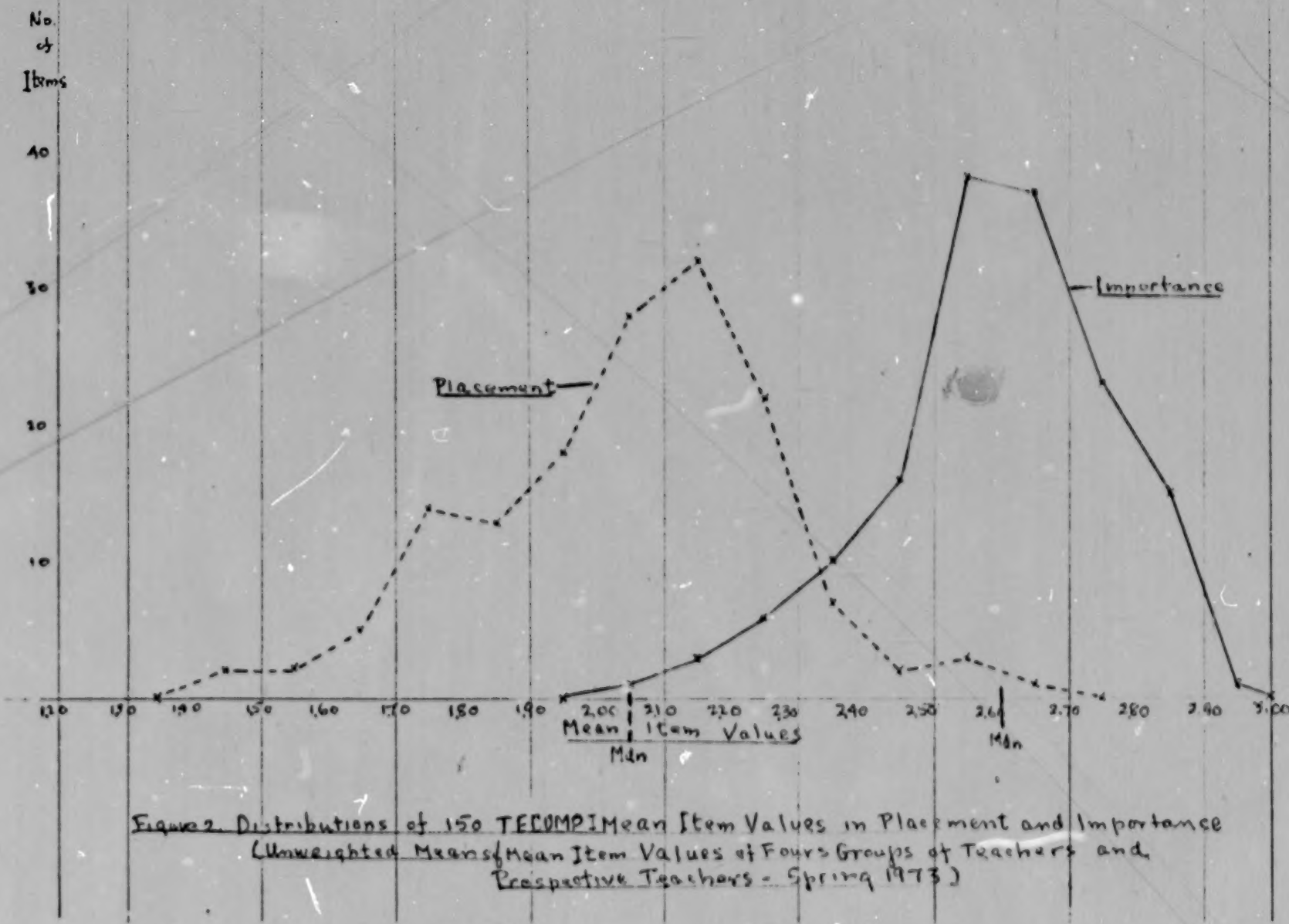


Figure 2. Distributions of 150 TECOMP Mean Item Values in Placement and Importance (Unweighted Means of Mean Item Values of Four Groups of Teachers and Prospective Teachers - Spring 1973)

ticularly noteworthy in the ratings by the student teachers themselves and of those who supervised them, namely the field associates. However, the fact that not one of the 150 items received a near-unanimous rating of 2 should serve as a reminder of the need to include some pre-student teaching and some post-student teaching attention to virtually every competency even where major training emphasis occurs during the student teaching period.

Mean Item Values for the Subgroups

We next turn to the ratings of Importance and of Placement by each of the four groups, and by pairs of groups. Table 1 shows the means and the standard deviations of the distributions of mean item values for the several groups and group combinations.

Regarding the mean rating of Importance by the several groups, perhaps the most interesting comparison shown in the table is the higher ratings by the two groups concerned with student teaching, namely the student teachers and the field associates, numbers 2 and 4 respectively. That the members of these groups were involved in a special project entailing cooperative field activity may have lent added interest in the competencies. Conversely, the study of the often difficult psychological material related to the competencies may have had a sobering effect on the members of the two Educational Psychology groups, numbered 1 and 3. The graduate groups, numbered 3 and 4 judged the competencies to be more important , in general, than did the undergraduate groups, numbered 1 and 2. In any case, as noted, the competencies are viewed by all the groups as having considerable importance for teaching.

Table 1. Means and Standard Deviations of Distributions of Mean Item Values for the Several Respondent Groups.

Group	N	Importance		Placement	
		Mean	S.D.	Mean	S.D.
1. Undergraduate Educational Psychology	31	2.50	.21	2.00	.25
2. Student Teachers	20	2.61	.21	1.94	.26
3. Graduate Educational Psychology	28	2.54	.19	2.25	.22
4. Field Associates	36	2.74	.18	2.02	.25
5. Undergraduates (Groups 1 and 2)	51	2.55	.19	1.97	.24
6. Graduates (Groups 3 and 4)	64	2.64	.17	2.13	.22
7. Educational Psychology (Groups 1 and 3)	59	2.52	.19	2.12	.22
8. Stud. Teachers and Field Associates (Groups 2 and 4)	56	2.67	.20	1.98	.24
9. Total of Respondents (Groups 1, 2, 3 and 4)	115	2.60	.17	2.05	.22

More detailed comparisons among the several groups of respondents may be made by reference to Figure 3, which gives the ogives, or cumulative frequency charts, for each respondent group and each of the two criteria. The figure permits one to read off mean item values for given percentile points, or vice versa. Thus, the median in Importance of the field associates is approximately 2.79, and about 70 percent of the items are rated by the field associates to be above 2.70 in Importance.

The significance of the mean differences between respondent groups may be more fully grasped by comparing them with the size of the standard distributions of the concerned distributions as shown in Table 1. Thus, for example, the mean Importance rating of the graduate Educational Psychology group is a full standard deviation unit lower that of the field associate group. Another expression of the extent of difference between these groups is the fact that 86 percent of the item means of the field associate group exceed the median item value of the graduate Educational Psychology group.

In respect to Placement ratings, the student teachers propose earliest emphasis while the graduate Educational Psychology group of teachers suggest the latest, the difference representing more than a standard deviation unit. Overlapping of the item values of these two groups is relatively small, as many as 98 percent of the item means of the graduate Educational Psychology group exceeding the median of the distribution of the student teacher group.

Comparisons of the several distributions of the mean item values are shown in Appendix B, which gives the lower and upper limits of the mean item values for each of the ten deciles of the Importance and the

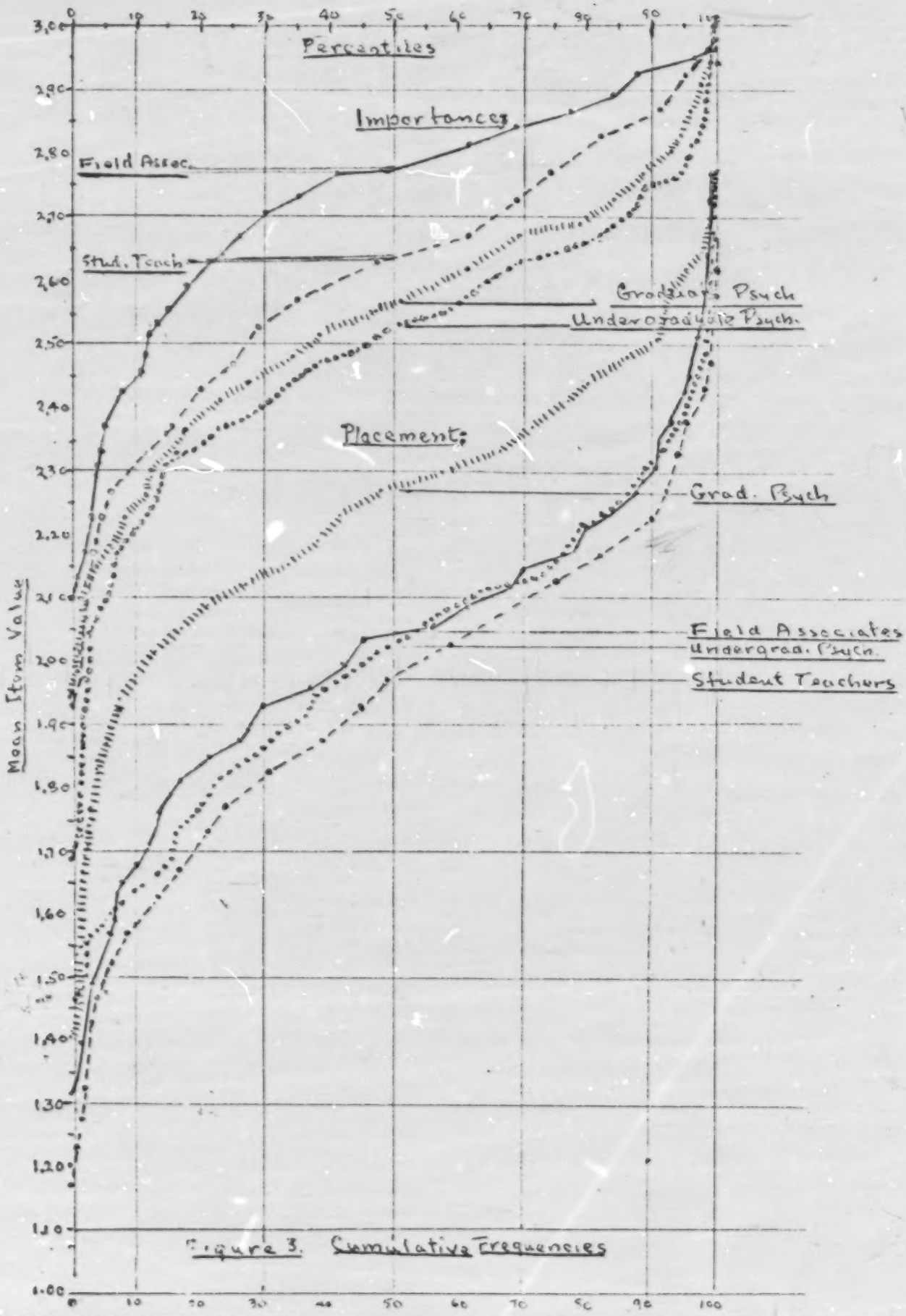


Figure 3. Cumulative Frequencies

Placement distributions for each respondent group. In order to avoid the use of the two-place number 10, the numeral 9 is employed to indicate the 10th, or highest, decile down to 0 for the 1st, or lowest decile. The decile equivalents were derived, separately for each criterion and response group, from the distributions of the mean item ratings as listed in Appendix C for each item. The table of equivalents was then used to determine the ciphers representing the several deciles as entered in the left hand margin of Appendix A to provide a convenient comparison of ratings for each of the TECOMP I items there reproduced.

Correlations of Mean Item Values for Paired Groups

While the average level of ratings in both Importance and in Placement was found to differ for the several groups, the relative standing of the 150 items remained fairly stable for paired groups in the case of either criterion, as shown by the correlations reported in Table 2.

Although all the coefficients shown in the table are rather high, the agreement is closer in the case of the Placement criterion as compared with that of Importance. The restricted variability of the Importance judgments may have influenced this result. The higher coefficients for the combined groups were to be expected in view of the added reliability of mean item values resulting from larger numbers of persons whose responses were averaged to yield the mean item values.

The fact that undergraduates agree with graduates somewhat more than do Educational Psychology students with field associate - student teacher groups suggests that common instruction and experience tend to influence the commonality of the ratings, particularly with respect to

Table 2. Correlations of Mean Item Values for Paired Groups and Combinations of Groups.

Groups	Coefficients of Correlation	
	Importance	Placement
1. Undergrad. Educ. Psych. with 2. Student Teachers	.534	.712
1. Undergrad. Educ. Psych with 3. Grad. Educ. Psych	.650	.713
1. Undergrad. Educ. Psych. with 4. Field Associates	.634	.729
2. Student Teachers with 3. Grad. Educ. Psych	.585	.663
2. Student Teachers with 4. Field Associates	.726	.752
3. Grad. Educ. Psych. with 4. Field Associates	.656	.721
5. Undergraduates (Gr. 1 and 2) with 6. Graduates (Gr. 3 and 4)	.813	.834
7. Educ. Psych. (Gr. 1 and 3) with 8. Stud. Teachers and Field Assoc. (Gr. 2 and 4)	.705	.816

Importance. The relatively high correlations between the student teachers and the field associates is another expression of this trend. The relatively lower coefficients obtained between the undergraduate Educational Psychology group and the student teachers in regard to the Importance criterion points to the probable difference in impact of the student teaching involvement as against that of pre-student teaching instruction with its lack of concrete experience with teaching.

The relation between the judgment of the Importance of a competency

and its suggested Placement in the training program is an intriguing one. Utilizing the ratings of all four groups, the correlation between mean item values for Importance and mean item values for Placement was found to be .217, reflecting a slight tendency to propose later placement of the items judged to be more important. For the graduate groups the correlation was slightly higher (.313), whereas it was slightly lower for the undergraduate groups (.177).

The low correlation between Importance and Placement ratings signifies that the respondents believe that a good proportion of items that are judged to be important should be stressed in the earlier periods of teacher education even though the overall trend moves slightly in the opposite direction.

Judgments As Related to Kinds of Competency Items

Decisions as to the selection and placement of competency items in a teacher education program may be furthered by the consideration of two questions: (1) What kinds of items are judged to be important on the part of concerned participants? and (2) What kinds of items are suggested for placement in each of the stages of teacher preparation?

In order to answer these two questions, in part at least, the following procedure was employed:

1. A number of hypothetically relevant item characteristics were identified, such as the following:
   a. Topical areas under which an item might fall.
   b. Whether an item is primarily foundational or applicational.
   c. Whether an item stresses knowing as against doing.
   d. Whether an item tends toward generality or specificity.
   e. Whether an item stresses psychology or education.
   f. How technical an item is judged to be.

2. For each of these characteristics each item was placed in one of several categories. Thus, an item might be classified as relating to the curriculum area, as being foundational in character, as stressing knowing, as being specific, as bearing on psychology, and as being high in technical difficulty.

3. Utilizing an analysis of variance computer program, the mean rating in Importance and in Placement assigned the items in each of the categories under each characteristic was determined.

4. Comparisons of the obtained means were made in order to ascertain the probable relationships between each item characteristic and each of the two criteria, Importance and Placement.

Table 3 indicates for each of the two criteria the mean values of items categorized under the several item characteristics referred to above.

Although there are a number of notable differences in the mean ratings of the several kinds of competencies shown in Table 3, no single type has a monopoly on importance or suggested earlier or later placement. Judgments regarding individual items as listed in Appendixes A and C may well be consulted as specific decisions are made concerning inclusion and placement of a given competency. However, some meaningful general trends are evident.

Thus, the topical breakdown of the Checklist indicates that those items receive higher Importance ratings, on the average, that relate to learner readiness, motivation, behavior and appraisal, together with individualization. Objectives, teacher roles, and materials and media do not fare as well. There is a moderate tendency to consider less technical, more specific, applicational, and doing item types to be more important than more technical, general, foundational, and knowing types. Educationally oriented items are rated, on the whole, slightly higher than those that are more clearly psychological in content.

Table 3. Mean Importance and Placement Ratings for Categories of Items Classified Under the Several Item Characteristics: Total Group.

Item Categories	No. of Items	Mean Item Ratings Importance	Placement
TELEP Section:			
1. Learner Objectives, Readiness and Motivation	30	2.59	2.00
2. Teacher Roles and Pupil Interactions	30	2.53	2.00
3. Curriculum and Materials	30	2.58	2.05
4. Teaching Procedures	30	2.59	2.04
5. Pupil Behavior, Appraisal, and Individualization	30	2.66	2.13
Difference: Highest minus lowest value:		.13	.13
Topical Areas:			
1. Objectives	10	2.46	1.90
2. Readiness and Motivation	13	2.69	2.05
3. Teacher Roles and Pupil Interactions	17	2.52	1.97
4. Curriculum	21	2.61	2.03
5. Materials and Media	13	2.53	2.13
6. Instructional Procedures	32	2.59	2.02
7. Classroom Management and Behavior	17	2.67	2.10
8. Appraisal and Individualization	20	2.63	2.16
9. Teaching-Learning Process as a Whole	7	2.49	1.98
Difference: Highest minus lowest value:		.23	.26
Psychological versus Educational:			
1. Psychological	39	2.56	1.93
2. Educational	111	2.61	2.09
Difference: Higher minus lower value:		.05	.14
Degree of Technicality:			
1. Least Technical	51	2.63	2.06
2. Somewhat Technical	71	2.59	2.02
3. Considerably Technical	28	2.52	2.06
Difference: Highest minus lowest value:		.11	.04
General versus Specific:			
1. General	55	2.53	1.96
2. Specific	95	2.63	2.10
Difference: Highest minus lowest value:		.10	.14
Foundational versus Applicational:			
1. Foundational	26	2.51	1.82
2. Applicational	124	2.61	2.10
Difference: Higher minus lower value:		.10	.28
Knowing versus Doing:			
1. Knowing	47	2.52	1.89
2. Doing	103	2.63	2.13
Difference: Higher minus lower value:		.11	.24
Combination of Foundational and Knowing:			
1. Foundational and Knowing	23	2.50	1.79
2. Foundational and Doing	3	2.59	2.01
3. Applicational and Knowing	24	2.52	1.97
4. Applicational and Doing	100	2.62	2.12
Difference: Highest minus lowest value:		.12	.33

Differences in mean item value among the kinds of competencies are sharper for suggested placement than for importance. As previously noted, there is a slight tendency to suggest later placement for the more importantly judged items. Of particular interest is the rather strong trend toward earlier placement of certain topical areas and of foundational material that stresses knowing as against doing.

When each of the constituent groups is considered separately, the judgments of the several types of items reported above for the group as a whole are supported with minor exceptions. Table 4 shows in detail the mean ratings for item categories as determined for each group of respondents. As noted earlier, the average level at which the several groups anchor their ratings varies somewhat, but the relative placement of the kinds of competencies within each group remains rather stable with but a few minor deviations.

Interrelationships Among Item Characteristics

The quite consistent relationships between a number of characteristic and judgments of their importance and placement lead one to speculate as to whether a given characteristic functions in a direct, causal manner or indirectly through some other characteristic with which it is related. Thus if an item is both specific and applicational, is it rated high because it is specific or because it is applicational? Or, do both characteristics have a direct effect? Questions of this type are not readily answered in dealing with what may well be a transactional system of influences. However, two procedures were employed that may shed some light on the problem.

Table 4. Mean Importance and Placement Ratingsfor Categories of Items Classified Under the Several Item Characteristics for Each of the Respondent Groups.

Item Category	No.of Items	Mean Item Ratings: Importance Under Ed.Ps.	Importance Stud. Teach.	Importance Grad. Ed.Ps.	Importance Field Assoc.	Placement Under Ed.Ps.	Placement Stud. Teach.	Placement Grad. Ed.Ps.	Placement Field Assoc.
TELEP Section:									
1. Obj.;Read.;Mot.	30	2.53	2.56	2.56	2.75	1.98	1.93	2.17	1.94
2. Roles;Interact	30	2.49	2.49	2.53	2.63	1.95	1.85	2.21	2.02
3. Cur.;Materials	30	2.40	2.65	2.52	2.75	2.01	1.94	2.28	1.99
4. Teach. Proced.	20	2.54	2.58	2.50	2.76	1.96	1.97	2.22	2.03
5. Beh.;Appr.;Ind.	30	2.54	2.75	2.59	2.77	2.09	1.99	2.35	2.11
Diff. High - Low:		.14	.26	.09	.14	.14	.14	.18	.17
Topical Areas:									
1. Objectives	10	2.38	2.46	2.38	2.62	1.94	1.81	2.04	1.82
2. Read.;Motiv.	13	2.62	2.63	2.72	2.83	1.98	2.00	2.24	1.99
3. Roles;Interact.	17	2.50	2.46	2.55	2.60	1.94	1.82	2.18	1.96
4. Curriculum	21	2.49	2.64	2.54	2.80	1.93	1.96	2.23	2.00
5. Mat.;Media	13	2.31	2.63	2.49	2.72	2.19	1.98	2.37	2.01
6. Instr. Proced.	32	2.53	2.58	2.49	2.76	1.96	1.93	2.21	2.00
7. Cl.Man.; Behav.	17	2.57	2.70	2.65	2.78	2.02	1.97	2.31	2.12
8. Appr.; Indiv.	20	2.50	2.75	2.55	2.76	2.14	2.02	2.37	2.12
9. Teach.-Learn.Pr.	7	2.47	2.45	2.45	2.61	1.84	1.82	2.20	2.08
Diff. High - Low:		.31	.30	.33	.23	.26	.21	.33	.30
Psych. vs. Educ.:									
1. Psychological	39	2.47	2.55	2.51	2.66	1.90	1.81	2.14	1.88
2. Educational	111	2.51	2.63	2.56	2.76	2.03	1.98	2.28	2.07
Diff. High - Low:		.04	.08	.05	.10	.13	.17	.14	.19
Technicality:									
1. Least Tech.	51	2.58	2.62	2.59	2.77	1.99	1.98	2.26	2.04
2. Somewhat Tech.	71	2.49	2.60	2.55	2.74	1.97	1.91	2.23	2.00
3. Consid. Tech.	28	2.38	2.60	2.43	2.67	2.06	1.93	2.25	2.03
Diff. High - Low		.20	.02	.16	.10	.07	.07	.03	.04
Gen. vs. Spec.:									
1. General	55	2.45	2.55	2.48	2.65	1.92	1.85	2.14	1.92
2. Specific	95	2.52	2.65	2.55	2.78	2.04	1.98	2.29	2.07
Diff. High - Low:		.07	.10	.07	.13	.12	.13	.15	.15
Found. vs. Applic.:									
1. Foundational	26	2.45	2.49	2.48	2.63	1.75	1.68	2.03	1.79
2. Applicational	124	2.51	2.61	2.53	2.76	2.05	1.99	2.29	2.07
Diff. High - Low:		.06	.12	.05	.13	.30	.31	.26	.28
Know vs. Do:									
1. Knowing	47	2.42	2.53	2.48	2.65	1.83	1.76	2.10	1.76
2. Doing	103	2.53	2.64	2.57	2.78	2.08	2.02	2.31	2.10
Diff. High - Low:		.11	.11	.09	.13	.25	.26	.21	.34
Comb. Found.-Know.:									
1. Found.-Know	23	2.43	2.49	2.48	2.62	1.72	1.67	2.01	1.76
2. Found.-Do	3	2.61	2.58	2.49	2.68	1.99	1.81	2.17	2.09
3. Applic.-Know	24	2.41	2.58	2.49	2.67	1.94	1.84	2.20	1.92
4. Applic.-Do	100	2.53	2.64	2.57	2.77	2.07	2.03	2.31	2.10
Diff. High - Low:		.20	.15	.09	.15	.35	.36	.30	.34

The first simply sets forth contingency tables showing the interrelationship of each characteristic with every other one. The second notes the relation of the several characteristics to the Importance and Placement criteria.

As illustrative of the first approach, it was found that the judged technicality of items varies somewhat, as might be expected, with the topical area covered. Thus, items judged as being relatively more technical tend to fall in Areas 2 (Readiness and Motivation), 4 (Curriculum), and 8 (Appraisal and Individualization). Those with the lowest technicality ratings are more frequently found in Areas 6 (Instructional Procedures), 7 (Classroom Management and Pupil Behavior), and 9 (Teaching-Learning Process). The sharpness of the distinctions between the Areas was reduced by the fact that in selecting items for TECOMP I from earlier forms, items that had been judged to be highly technical were for the most part excluded.

The overlappings of four other item characteristics taken in pairs are here reported in tabular form. Each characteristic is represented by two categories, as follows: (1) General versus Specific; (2) Foundational versus Applicational; (3) Knowing versus Doing; and (4) Psychological versus Educational. Table 5 depicts the percentage of items falling in each paired combination of item categories. It shows a high degree of overlapping between categories designated Specific and Applicational, Specific and Doing, Specific and Educational, Applicational and Doing, Applicational and Educational, and Doing and Educational. Thus, items with combined pairs of characteristics designated Specific, Applicational, Doing, and Educational tend to occur relatively frequent-

ly, with overlappings as indicated in the table.

Table 5. Overlapping in Percent of TECOMP I Items Judged to Be General or Specific, Foundational or Applicational, Knowing or Doing, and Psychological or Educational.

Item Characteristic	Percent Overlapping					
	Found.	Applic.	Knowing	Doing	Psych.	Educ.
General	13.3	23.3	17.3	19.3	14.6	22.0
Specific	4.0	59.3	14.0	49.3	11.3	52.0
Foundational			15.3	2.0	8.7	8.7
Applicational			16.0	66.6	17.3	65.3
Knowing					14.0	17.3
Doing					11.9	56.7

The following frequencies of occurrence of the several item categories may be noted from Table 5:

Category	Percent
General	36.6
Specific	63.3
Foundational	17.3
Applicational	82.6
Knowing	31.1
Doing	68.6
Psychological	25.9
Educational	74.0

The item frequencies under the categories of the item characteristics serve as a partial indication of the scope of TECOMP I, and are helpful in the determination of its representativeness in sampling teaching competencies. It should be noted that the placement of items under the several categories was based on the writer's judgment alone. Degrees of

overlapping may have been influenced thereby as well as by the frequency with which any given category occurred.

With information as to item frequency of the several categories and with data as to the overlapping of categories available, it is possible to proceed further with the inquiry as to plausible relationships between the kind of item and its ratings in Importance and suggested Placement.

Item Characteristics As Possible Determiners of Ratings

In the search for hints as to likely influences item characteristics may have on ratings of Importance and of Placement it may be well to reassemble certain of the findings already reported, notably in Table 3. That table shows the mean item ratings for each category of a number of item characteristics including those designated as General versus Specific, Foundational versus Applicational, Knowing versus Doing, and Psychological versus Educational. Table 6 gives the mean of the item ratings in Importance and in Placement for each of these eight sets of items.

The table reveals that the smallest distinction in Importance ratings exists between Psychological and Educational items. The remaining differences are notable but not striking, in each case falling below the standard deviation value of .17 for the distribution of the mean item ratings of all of the items.

In the case of the Placement ratings, where the overall standard deviation of the distribution is .22, two of the four differences are above, and two below, that value. In the two superior instances, namely

Table 6. Mean Item Ratings in Importance and in Placement for Each of the Eight Item Characterisitcs Categories.

Item Category	No. of Items	Mean Importance	Mean Placement
General	55	2.53	1.96
Specific	95	2.63	2.10
Difference:		.10	.14
Foundational	26	2.51	1.82
Applicational	124	2.61	2.10
Difference:		.10	.28
Knowing	47	2.52	1.89
Doing	103	2.63	2.13
Difference:		.11	.24
Psychological	39	2.56	1.93
Educational	111	2.61	2.09
Difference:		.05	.14
All Categories	150	2.60	2.05

the difference between Foundational and Applicational items and that between Knowing and Doing items, the distinction is striking; in the other comparisons, they are moderately high. In reading the Placement column of the table, it should be recalled that the higher the rating, the later the suggested placement of the item in the teacher education program.

Using higher Importance and later Placement as representing the "plus" side of a scale, the categories designated as Specific, Applicational, Doing, and Psychological are again seen to be "plus" qualities, on the average, whereas the categories labelled General, Foundational, Knowing, and Psychological are noted relatively as negative or "minus" ones as compared with the general level of Importance or Placement ratings.

The next consideration has to do with the combination of the characteristics of an item. Table 7 presents the means of the mean item values for items manifesting combinations of item characteristics taken two at a time. In Table 7 each set of four means, either in the Importance or the Placement column, suggests the respective influences of contrasting categories for the combined item characteristics. Each of the sets of four values represents one pair of "minus" categories, one "minus"-"plus" combination, one "plus"-"minus" combination, and a final pair of "plus"-"plus" categories.

As may be expected, inspection of Table 7 reveals that in every instance in the case of both the Importance and the Placement sets, the double plus pairs yield the highest mean of the mean item ratings. With very minor exception, (e.g., Foundational-Educational items are rated lower in Importance than Applicational-Psychological items), the double minus pairs yield the lowest means in mean item value.

A comparison in Table 7 of the mean "minus"-"plus" pair, such as Psychological-Specific, with that of a "plus"-"minus" pair, such as Educational-General offers evidence of the relative influence of the two item characteristics involved. Thus, it may be noted that:

1. Psychological items that are also Specific are rated somewhat higher in Importance but earlier in Placement than are items that are both Educational and General.
2. Psychological items that are also Applicational are rated somewhat higher in Importance and later in Placement than are Educational items that are also Foundational.
3. Psychological items that refer to Doing are rated somewhat higher in Importance and later in Placement than are Educational items that refer to Knowing
4. General items that refer to Doing are rated about the same in Importance but somewhat later in Placement than are Specific items that refer to Knowing.

Table 7. Means of Mean Item Ratings in Importance and in Placement of Items Manifesting Combinations of Item Characteristics Taken Two at a Time.

Item Categories	No. of Items	Mean Importance	Mean Placement
Psychological-General	21	2.51	1.94
Psychological-Specific	17	2.61	1.93
Educational-General	33	2.55	1.98
Educational-Specific	78	2.64	2.14
Psychological-Foundational	13	2.54	1.77
Psychological-Applicational	26	2.56	2.01
Educational-Foundational	13	2.49	1.85
Educational-Applicational	98	2.63	2.12
Psychological-Knowing	21	2.51	1.83
Psychological-Doing	18	2.61	2.04
Educational-Knowing	26	2.53	1.92
Educational-Doing	85	2.63	2.14
General-Foundational	20	2.52	1.80
General-Applicational	35	2.54	2.06
Specific-Foundational	6	2.50	1.88
Specific-Applicational	89	2.64	2.12
General-Knowing	26	2.48	1.85
General-Doing	29	2.58	2.07
Specific-Knowing	21	2.57	1.94
Specific-Doing	74	2.65	2.15
Foundational-Knowing	23	2.50	1.78
Foundational-Doing	3	2.59	1.98
Applicational-Knowing	24	2.54	1.98
Applicational-Doing	100	2.63	2.13
All Items	150	2.60	2.05

Of all the two-category combinations the Specific-Doing one receives both the highest Importance rating and the latest Placement rating. Items representing the General-Knowing combination receive the lowest Importance rating, on the average. Earliest coverage is recommended for Psychological-Foundational items, with Foundational-Knowing items

a close second.

Certain of the possible comparisons in Table 7 are not referred to because of the smallness of the number of items in one or the other of the members of the pair of categories.

When combinations of three item characteristics are used in determining the means of mean item values, the average number of items per combination is seriously reduced, thus permitting fewer tenable comparisons. Nonetheless, a number of threefold combinations are presented for whatever they are worth in Table 8. However, comments even of a tentative nature will be avoided where the number of items for any given combination is less than six. The format of Table 8 is similar to that of Table 7.

Table 8 indicates that the addition of a "plus" category to a given double combination of characteristics ordinarily yields a higher mean rating than the addition of a "minus" category. However, there are some exceptions, notably the following:

1. The Foundational category, though "minus", is rated higher than the Applicational category in Importance when added to the Psychological-General combination.
2. The Psychological category is rated slightly higher than the Educational category in both Importance and Placement when added to the General-Foundational combination.
3. The Psychological category is rated higher than the Educational category in Importance when added to the Foundational-Knowing combination.
4. The General category is rated later than the Specific category in Placement when added both to the Psychological-Foundational and the Psychological-Applicational combinations. This reversal does not occur in instances where the Educational category is involved.
5. The Foundational category is rated higher than the Applicational one in Importance when added to the Psychological-Knowing combination.

Table 8. Means of Mean Item Ratings in Importance and in Placement of Items Manifesting Combinations of Item Characteristics Taken Three at a Time.

Item Categories	No. of Items	Mean Importance	Mean Placement
Psych.-Gen.-Found.	11	2.54	1.81
Psych.-Gen.-Applic.	11	2.49	2.07
Psych.-Gen.-Knowing	15	2.48	1.89
Psych.-Gen.-Doing	7	2.57	2.07
Psych.-Spec.-Found.	2	2.56	1.62
Psych.-Spec.-Applic.	15	2.61	1.97
Psych.-Spec.-Knowing	6	2.56	1.73
Psych.-Spec.-Doing	11	2.63	2.03
Psych.-Found.-Knowing	11	2.54	1.76
Psych.-Found.-Doing	2	2.55	1.89
Psych.-Applic.-Knowing	10	2.47	1.93
Psych.-Applic.-Doing	16	2.61	2.06
Educ.-Gen.-Found	9	2.50	1.78
Educ.-Gen.-Applic.	24	2.57	2.06
Educ.-Gen.-Knowing	11	2.47	1.79
Educ.-Gen.-Doing	22	2.59	2.07
Educ.-Spec.-Found.	4	2.47	2.01
Educ.-Spec.-Applic.	74	2.65	2.15
Educ.-Spec.-Knowing	15	2.58	2.02
Educ.-Spec.-Doing	63	2.65	2.15
Educ.-Found.-Knowing	12	2.47	1.81
Educ.-Found.-Doing	1	2.68	2.27
Educ.-Applic.-Knowing	14	2.58	2.02
Educ.-Applic.-Doing	84	2.66	2.14
Gen.-Found.-Knowing	17	2.51	1.76
Gen.-Found.-Doing	3	2.59	2.01
Gen.-Applic.-Knowing	9	2.42	2.02
Gen.-Applic.-Doing	26	2.58	2.07
Spec.-Found.-Knowing	6	2.50	1.88
Spec.-Found.-Doing	0	----	----
Spec.-Applic.-Knowing	15	2.60	1.96
Spec.-Applic.-Doing	74	2.65	2.15

In view of the exceptional instances cited it would seem desirable to examine competency items in terms of the combination of their characteristics as well as their characteristics taken one at a time.

Table 9 completes the presentation of data relative to the Importance and Placement ratings of categories of items that combine various item characteristics, in this case considered four at a time. Again, the number of items tends to be reduced when a fourth element enters the combination. Only seven of the sixteen possible combinations have six or more items, the arbitrary point chosen for making possibly dependable comparisons.

Where the number of items permit minimally reliable comparisons there are two instances where the addition of a fourth characteristic goes counter to the general rule that "plus" characteristics are favored over "minus" ones. Thus, (1) the Psychological category is rated higher than the Educational category in both Importance and Placement when added to the General-Foundational-Knowing combination; and (2) the Foundational category is rated higher in Importance though earlier in Placement than the Applicational category when added to the Psychological-General-Knowing combination.

Tabken together, then, Tables 6, 7, 8, and 9 show that certain item characteristics tend to be associated, with some exceptions, with the average level of Importance and Placement ratings. The exceptions become evident when the characteristics are considered in combinations of two, three, and four.

Table 9. Means of Mean Item Ratings in Importance and in Placement of Items Manifesting Combinations of Item Characteristics Taken Four at a Time.

Item Categories	No. of Items	Mean Importance	Mean Placement
Psych.-Gen.-Found.-Knowing	9	2.53	1.80
Psych.-Gen.-Found.-Doing	2	2.55	1.89
Psych.-Gen.-Applic.-Knowing	6	2.41	2.02
Psych.-Gen.-Applic.-Doing	5	2.57	2.12
Psych.-Spec.-Found.-Knowing	2	2.56	1.62
Psych.-Spec.-Found.-Doing	0	----	----
Psych.-Spec.-Applic.-Knowing	4	2.55	1.78
Psych.-Spec.-Applic.-Doing	11	2.63	2.03
Educ.-Gen.-Found.-Knowing	8	2.48	1.72
Educ.-Gen.-Found.-Doing	1	2.68	2.27
Educ.-Gen.-Applic.-Knowing	3	2.44	2.00
Educ.-Gen.-Applic.-Doing	21	2.58	2.06
Educ.-Spec.-Found.-Knowing	4	2.47	2.01
Educ.-Spec.-Found.-Doing	0	----	----
Educ.-Spec.-Applic.-Knowing	11	2.62	2.02
Educ.-Spec.-Applic.-Doing	63	2.65	2.15

The Mean Values and the Characteristics of Individual Items

Except for correlations between paired individual mean item values, the findings reported thus far refer to categories or groups of items. Important as the identification of such groupings and their relationships may be, there are two reasons for the intensive study of individual items.

These are: (1) Even where group trends are evident, individual exceptions and differentiations are often clearly present; and (2) The application of the findings to such considerations as teacher education curriculum making may require at times an examination of specific competencies at the level of the individual item.

For reasons such as these the reader is invited to make a rather detailed study of the findings as they apply to TECOMP I's individual items.

In order to facilitate the inspection of particularized item data, coded marginal entries have been made next to each item in the reproduction of the Checklist in Appendix A. Mean item ratings in Importance and in Placement, which are reproduced in their original form in Appendix C, have been reduced to decile values for each group of respondents and for the total group. These decile equivalents are shown in the left hand margin as noted in the key accompanying the appendix. In the right hand margin will be found the writer's categorical placement of each item under five item characteristics as also noted in the key to the appendix.

By reference to the list of competencies and their accompanying marginal entries in Appendix A one may note any number of interesting and possibly important points. Several of these are offered by way of illustration.

Item 3 refers to the ability to state the developmental stages or crises in a person's life that may serve as sources of fundamental psychoeducational objectives. Although Erik H. Erikson is not men-

tioned, illustrations from his list of "crises" are included in the statement. Every respondent group rates this item in the lowest decile in Importance, and if included in the training program at all, all but one group would give it the earliest Placement decile rating while that group would allocate it to next to the earliest decile. The item had been independently judged by the writer, as indicated in the right hand margin in Appendix A, as being General, Foundational, Knowing, Psychological, and high in Technicality with regard to the set of item characteristics. The inspection of the ratings assigned this item corroborates the general trend which relates lower Importance and earlier Placement to items so characterized.

Thus far, Item 3 presents a consistent picture. However, the importance of Erikson's contribution to the setting of broad educational goals through an understanding of significant developmental stages is such as to cause one to speculate as to whether the educational profession may not have been overlooking an outstanding ideational source.

The data relative to Item 6 may prove instructive in a similar way. This item refers to the progression of mastery in the affective domain from passive awareness to incorporation into one's character, personality, or automatic response. It is based, in effect, on the underlying theme of the Krathwohl committee's Taxonomy of Educational Objectives: Affective Domain. Like Item 3, it is rated in the lowest decile in Importance, although unlike that item, it receives a late rating in Placement. In characterization the item is categorized identically with Item 3 except for being labelled Applicational rather than Foundational. In the opinion of the writer, most educational psychologists would regard

the stated competency as reflecting a very important insight. Discussion by concerned parties as to why it is not rated higher in Importance may prove rewarding. Similarly, the divergence in Placement ratings may be worth further examination.

The low Importance rating of these two rather subtle psychological items is reminiscent of the well known Wickman study of the comparative views of teachers and psychologists of behavior symptoms of children. The analogy with the earlier study, which proved so fruitful in the mental health field, suggests the desirability of a similar study utilizing the items of the Checklist as a basis for securing the judgments of the two groups of professionals.

Turning to an item that is judged to be highly Important on the part of virtually each of the groups, namely Item 15, we note a competency that seems difficult of accomplishment. It refers to the selection and application of instructional procedures appropriate to the learner's developmental status and realistic expectations. One may speculate as to whether reference to the latter touched a respondent chord and led to a favorable rating, but nonetheless, a high level of competency is implied in the item. It suggests a complex mastery that might well fall within the upper reaches of a Gagné-type hierarchical chart. Although psychologically not easy to do, it is applicational, entails a "doing" skill, and represents a specific task. In a sense, the high Importance rating may suggest that prospective and present teachers are responsive to difficult professional masteries where their applicational significance is clearly evident.

Another type of lesson may be gleaned from a consideration of the responses to Item 93, which received the highest Importance rating of all the 150 competencies listed. This item refers to the ability to communicate knowledge and ideas clearly where telling or explaining is appropriate in a lesson. Rather early training in this capability is recommended. It had been judged by the writer as having all five of the characteristics later found to be favorable to a high Importance rating. The interesting point about training for this competency is that it need not await enrolment in Education courses. Departments of English and of Speech, not to mention other disciplines, may well assume the responsibility, in large measure, for inculcating the ability "to communicate knowledge and ideas clearly".

Competencies related to various schools of psychological thought receive varied reception. The ratings of Item 127 must come as a blow to those educational psychologists who subscribe to a Gestalt or holistic view of learning. Item 113, on the other hand, should give encouragement to those who preach the importance of self-image. Behavior modification psychologists are treated to a shock in the low Importance ratings assigned to that subject, although the two Educational Psychology groups suggest that if included, it be presented early in the training sequence whereas the two field groups suggest later placement. This last observation implies the probability that receptivity is tied in with critical periods in the training sequence.

These few illustrations - and many more could be cited - may serve, hopefully, to indicate in a small way the many possible considerations that may be raised through an examination of the responses to the indiv-

idual items. It is not feasible to present anything like a full treatment of the implications of such an examination, but a number of questions and tentative conclusions will be presented in the concluding discussion in this report.

Placement of Items Prior to, During, and After Student Teaching

Field experience in the form of student teaching has long been recognized as a crucial phase of teacher education programs. The question as to which competencies should be emphasized during the student teaching experience is a challenging one, not only because of the importance of student teaching, but also because practical considerations restrict the number of masteries that can be covered in the course of this relatively expensive training effort. It seemed useful, therefore, to extract and present in further detail data as to the training emphasis the respondents give to the student teaching period in comparison with the previous and the following periods.

The earlier presentation of findings relative to item placement has utilized numerical calculations on the assumption that the one to three ratings represented equal degrees on a scale of earlier to later emphasis. As the key to the ratings indicates, the judgment requested was a categorical one, namely whether in preparing for each competency more stress should be placed: 1. "prior to student teaching"; (2) "during student teaching"; or (3) "during the holding of an actual teaching position". Appendix D, in addition to noting the mean item ratings in Importance and in Placement for each item, gives the percentage of each group of respondents choosing each of the three periods for major emphasis.

Appendix D confirms the observation that the several groups respond fairly consistently with one another. There are some differences, however. For example, the graduate Educational Psychology group tends, on the whole, to propose relatively greater emphasis on the post-student teaching period than do the other groups. The undergraduate Educational Psychology students tend to give somewhat less emphasis to the student teaching period. Nonetheless, the overall stress is placed on student teaching. Excluding tie percentages, that period receives a plurality rating in the case of 106 items as against only 19 items for each of the other two periods.

A detailed study of Appendix D, especially in conjunction with item characteristic data noted in Appendixes A and C will offer further insights related to proposed period of training emphasis.

That the two Educational Psychology groups would give less stress to the student teaching period than the Student Teacher group and their supervisors, the Field Associates, is further demonstrated in Table 10, which presents the percentage of ratings for each of the three periods as applied by each respondent group and the group as a whole. In addition, Table 10 breaks down these percentages according to the sectional topical fields under which the competencies are grouped in TECOMP I , as follows:

Section	Field
1	Learner Objectives, Readiness, and Motivation
2	Teacher Roles and Pupil Interactions
3	Curriculum and Materials
4	Teaching Procedures
5	Pupil Behavior, Appraisal, and Individualization

Table 10. Percent of Ratings Assigned to Each of the Training Periods by Each Respondent Group and the Total Group for Each Section of the Teacher Competencies Checklist (TECMP I) Together with the Percents of Plurality Ratings Assigned by the Total Group and for TECMP Sections.

Group and Training Period	TECMP I Section 1	2	3	4	5	TECMP Total	Total TECMP Pluralities
Undergrad. Educ. Psych.:							
Prior to Student Teaching	32	31	28	28	24	28	24
During Student Teaching	36	42	41	47	43	42	53
After Student Teaching	32	27	31	25	33	30	23
Graduate Educ. Psych.:							
Prior to Student Teaching	21	19	15	16	15	17	8
During Student Teaching	39	38	42	44	35	40	45
After Student Teaching	40	43	43	40	50	43	47
Student Teachers:							
Prior to Student Teaching	30	33	29	26	28	29	22
During Student Teaching	47	48	48	50	45	48	65
After Student Teaching	23	19	23	24	27	23	13
Field Associates:							
Prior to Student Teaching	27	26	24	16	17	22	13
During Student Teaching	51	45	52	63	54	53	74
After Student Teaching	22	29	24	21	29	25	13
Total Group:							
Prior to Student Teaching	28	27	24	22	26	24	13
During Student Teaching	43	44	46	51	44	46	71
After Student Teaching	29	29	30	27	35	30	16
Plurality of Ratings: Total Group:							
Prior to Student Teaching	20	27	3	8	8	13	
During Student Teaching	75	60	70	89	60	71	
After Student Teaching	5	13	27	3	32	16	

An additional feature of Table 10 is the inclusion of plurality choices of the three Placement responses, that is, the percentage of items in which the plurality of ratings by the stated groups favored placement oftraining prior to, during, or after student teaching. These plurality percentages are shown according to the respondent groups and the sections of TECOMP I.

Overall, Table 10 indicates that the student teaching period is is the dominant period of choice for major emphasis upon a majority of the competencies listed in TECOMP I. There is some exception on the part of the graduate Educational Psychology group, which places slightly greater stress on the post- student teaching period. The undergraduates, both pre-student teachers and student teachers, tend to give slightly more weight to the prior to student teaching period than do the groups who are already teaching. Section 4 of TECOMP I, dealing with Teaching Procedures, is most favored by each of the groups for emphasis during the student teaching period. In terms of plurality choices a good many items in Sections 1 and 2 of the Checklist are suggested for coverage in the prior to student teaching period.

Thus, Table 10 and Appendix D provide data for raising and examining both specific and broad questions as to the most acceptable placement of competency objectives in the course of a program of teacher education.

III. CONCLUSIONS AND DISCUSSION

Summary of Major Findings

The principal outcome of the project here reported is the Checklist of Teacher Competencies reproduced in Appendix A.

The detailed findings growing out of the application of the Checklist to groups of prospective and present teachers are presented in Appendixes A, C, and D in terms of the individually listed competencies. By reference to these several appendixes one may note for each stated competency how it was rated in Importance and in Placement, or preferred period of training. The ratings are shown as made by the total group of respondents and by each of four constituent groups, namely: (1) undergraduates in Educational Psychology: (2) student teachers; (3) graduate teachers in a course in Educational Psychology; and (4) Field Associates, or graduate teachers who were supervising the student teachers.

Also noted in Appendixes A and C are the categories under which the writer had placed each item of the Checklist in regard to five item characteristics, as follows: Psychological vs. Educational; General vs. Specific; Foundational vs. Applicational; Knowing vs. Doing; and high vs. low in Technicality.

That the competencies listed in the Checklist were deemed to be of considerable importance for teaching, on the whole, is indicated by a mean item rating of 2.60 on a scale on which 2.00 represented moderate importance and 3.00, high importance. For the total group of respondents, not a single item fell below an average Importance rating of 2.00.

When the several groups are compared in the mean level of Importance assigned the competency items, the Field Associates are found to provide the highest rating, a mean of 2.74, while the undergraduate Educational Psychology students present the lowest mean rating, 2.50. Undergraduates, or prospective teachers, rate the items generally lower in Importance than do the graduate teachers. Student teachers and their supervising Field Associates regard the items as being of greater Importance, on the whole, than do undergraduate and undergraduate students who were enrolled in the writer's courses in Educational Psychology.

Mean item ratings in the Placement in training of the competencies show a wider distribution than do those of the Importance criterion. The The average of the mean item ratings in Placement is 2.05. The student teachers recommend the earliest placement of training, in general; the graduate teachers in the Educational Psychology course opt for the latest placement. Graduates in general propose later placement than undergraduates; students in Educational Psychology recommend later placement than do student teachers and their supervising Field Associates considered together.

While there are some differences in the relative ranking of the items in both Importance and Placement when one group is compared with another, the correlations of mean item ratings as between paired groups is high, averaging .617 for the Importance criterion, and .715 for Placement. Undergraduates versus graduates yield an Importance correlation of paired mean item values of .813, and in Placement, of .834. The combined Educational Psychology groups yield an Importance correlation of .705 with the student teacher and Field Associate groups taken together. The

corresponding correlation for Placement is .816. All these correlations provide evidence of a high degree of constancy among groups, and hence of dependability in the application of the Checklist.

Mean item ratings in Importance are only slightly correlated with those in Placement, the coefficient being .217, reflecting a slight tendency to suggest later placement for items judged to be more important. This trend is slightly higher for the graduate groups than for the undergraduates. The relation between Importance and Placement is low enough to warrant the conclusion that the respondents would distribute important items fairly well over the several periods of training, although a later analysis shows that greatest weight is assigned to the student teaching period.

The search for item characteristics associated with judgments of item Importance or Placement yielded the most positive results in regard to the earlier placement of Foundational as against Applicational items. Items stressing Knowing as compared with Doing are also generally suggested for notably earlier placement. Somewhat less so are Psychological as against Educational items, and General versus Specific ones. Judged Technicality did not relate with Placement, on the whole.

The association of item characteristics with Importance, as compared with Placement, was found to be less sharp and more even among the several characteristics. In general, Importance was positively associated with the Educational, the Specific, the Applicational, the Doing, and the lower Technicality item categories.

The same general overall trends held for the individual groups as for

the respondent group as a whole.

The overlapping of the "stronger", or "plus", item characteristics with one another was found to be marked, averaging 58 percent for the characteristics Educational, Specific, Applicational, and Doing, taken two at a time. Whether the high degree of overlapping among "positive" characteristic categories reflects a condition inherent in the items or results from bias in the writer's judgments as he placed the items under the several categories can be determined only by further study, particularly such as might employ a panel of judges instead of a single judge.

A tally of the characteristics marking the items of the Checklist indicated a predominance of the "stronger" qualities. Thus, 74 percent of the items were Educational and 26 percent, Psychological; 63 percent Specific and 37 percent General; 83 percent Applicational and 17 percent Foundational; and 69 percent Doing and 31 percent Knowing.

When an item is marked by two or more of the "stronger" characteristics as against a single one, its criterial ratings in Importance and Placement tend to increase, on the average, in the expected direction with several exceptions noted in the body of the report. Most involved in these exceptions is the Psychological category, which gains strength over the Educational particularly when combined with the Foundational and the Knowing categories.

When the content and nature of individual items are closely examined in relation to their Importance and Placement ratings, the informed reader is likely to recognize a commonsense quality in the group ratings, but there are likely to be some surprises at first glance. The variety

of interpretations and implications of the findings regarding individual items are such as to make discussion of them infeasible in a limited report. One of the things the critical reader is likely to sense upon inspecting the results of the study is the existence of varying levels of depth of interest in and understanding of foundational masteries. It is as if the pull of visible practicality manifests itself more strongly than that of a subtle awareness of potentially useful underlying insights. If the items of the Checklist and the respondents' judgments concerning them present a conglomerate picture, perhaps it is because the true image of the profession of teaching is complex and multi-dimensional.

The final phase of the summary of findings relates to the special problem of the placement of the competencies in the training sequence with specific reference to the student teaching period. Using a plurality vote as among the "prior to", "during", and "after" student teaching as a basis, there was a striking preference for placement of items during the student teaching period on the part of the total group of respondents and each of the constituent groups with some small exception in the case of the graduate Educational Psychology group. The Field Associates are strongest in their recommendation of this period. The prior to student teaching period is minimized somewhat by the teachers in the graduate Educational Psychology course. Otherwise, the before and after student teaching periods receive roughly the same emphasis as determined by the number of items obtaining plurality Placement votes.

Preferences as to the most to be emphasized training period spread quite evenly over the five topical sections of the Checklist with some variation, as follows. The first two sections, dealing respectively with

Learner Objectives, Readiness, and Motivation and with Teacher Roles and Pupil Interactions, yield a somewhat higher number of votes for the prior to student teaching period than do the remaining sections. The third section, which covers Curriculum and Materials, and the fifth section, which has to do with Pupil Behavior, Appraisal, and Individualization, are favored for the post student teaching period as compared with the other three sections. In all sections, and particularly in the fourth, relating to Teaching Procedures, the student teaching period receives a clear plurality of choices.

As with other findings employing the grouping of items, it is well to study the results with individual items as reported in the appendixes when specific decisions are to be made regarding competency selection and placement in a teacher education program. Further, since only a limited number of competencies can be incorporated for development during the student teaching period, it becomes necessary to consider which items, or aspects of items, can be adequately covered in field or laboratory experiences, offered prior to or following student teaching, that capture significant components of the student teaching mode of learning.

Implications of the Study

To grasp the full implications of the study it is well to view it in the context of its history and its purposes. This study is seen as part of a continuing program of past, present, and future research and application. It is oriented as much toward the clarification of underlying conceptual and procedural matters as toward the achievement of immediate results.

While clearly related to the objectives and procedures of the contemporary movement for competency-based teacher education, the project grew out of a less revolutionary but more radical examination of the elements comprising effective teaching upon which a balanced teacher education program may be based. Historical perspective reveals a persistent search for meaningful masteries as the source of professional competence. What is good in the more recent approach is not its tendency toward fragmentation as such, but rather the recognition that analysis, provided that it is conducted within a functional frame of reference, can serve to avoid the blunderings of vague, inapplicable generalities. Hence the repeated suggestion that the competency items be considered individually and definitively but in a conceptual context.

As to the present project, two questions of feasibility may be raised: (1) Does the Teacher Competencies Checklist as developed after preliminary exploratory study provide a useful instrument for immediate application? and (2) Are the procedures employed useful in the pursuit of further competency studies, whether of a foundational or applicational nature?

A review of the findings of the study provide a partial answer to the question of present applicability. To the extent that a consensus of judgment on the part of the respondent groups may be taken as indicating trends it may be inferred that virtually all the items, as understood, have a modicum of importance. Patterns of response tend to be consistent for the several groups. Judgments in the case of individual items, for the most part, evidenced fairly readily interpetable conclusions. In a subjective sense, the findings ring true.

In the matter of feasibility of procedures and their promise of fruitfulness in the further pursuit of the subject, it seems fair to state that the simple rating scale and the use of mean item values for each criterion and each respondent group open the way for comparative, correlational, and other useful procedures. Of particular note is the procedural approach to the study of item characteristics in relation to criterial judgments. This procedure enables one to formulate and test out hypotheses as to determinants of response patterns in various groups. Tables showing the overlappings in a multi-dimensional applications of judgments as to item characteristics is readily available through computer programming, as is the mean of mean item values of items manifesting any given item characteristic or combination of characteristics. The analysis of the overlappings of characteristics is useful in mapping the types of competencies we are dealing with, and in opening up avenues for exploring rarer combinations of characteristics.

Beyond specific observations gleaned from the findings of the study and reference to the several procedures employed, significant implications

of the study may lead into insights relative to one's conception of the teacher education program itself. This is not the place for the writer to set forth his philosophy of teaching or of teacher preparation, but an observation or two may be in order as related to the place of competency research in the educational scheme of things.

The writer believes that the incorporation of structured understanding is essential to the development of the professional person. This structuring needs to flow through two channels: (1) the disciplines that serve as the underlying and inner foundation of professional practice; and (2) the psychological integration within the person of the cognitive (or intellectual), the affective (or psychodynamic), and the psychomotor (or actional) components of organismic functioning.

What does this interest in structuring within the dual disciplinary-psychological framework signify in the study of competencies? It mean simply that we must perceive stated competencies as reflecting only the more visible pieces of functional wholes. It means, also, that in developing instrumentalities for the development of competencies, whether they be modern-age modules or old-fashioned course elements, we must make sure that we flesh in all of the mastery, and that we embody the mastery within a structurally and functionally organized disciplinary and psychological whole.

However, just as teaching itself may be carried on at an empirical rather than a speculative level, so one may "live with" the competency idea, at times, in an ad hoc, day-to-day manner. Thus, in teaching both an undergraduate and a graduate course in Educational Psychology the pres-

ent writer has used the Checklist as a convenient device for providing students with an overview of the tasks of teaching to the handling of which the study of Psychology might contribute. A similar use, in a way, was found for the Checklist by a colleague, who set up a contractual-type arrangement whereby in a student teaching course each student was asked to choose five competencies from each of the five sections of the Checklist as goals to be emphasized during a specified period.

In an earlier study utilizing a shorter list of competencies, twelve beginning teachers in a large elementary school in New York City rated the items in the form of psychoeducational proposals according to their Importance, Comprehension, and Application in teaching practice. At the same time a group of supervisors and teacher trainers rated the items according to the same criteria. Of particular interest was the finding that the beginning teachers judged the items as being far more fully applied than did the supervisory and training personnel. In a study of this type the discussion of the ratings, item by item, becomes a basis for pragmatic action.

Thus far, only a tiny fraction of the potential uses of the Checklist as outlined in the first section of this report has been exploited. The extent to which the fraction will increase in size remains to be seen.

Next Steps in Research and Application

Many hours of engagement with problems and data in the course of the present study could not but lead to ideas as to further needed research and application.

First, the Checklist itself, developed as it was as a general list of teacher competencies, calls for additional study and modification, par-

ticularly with a view toward improving its representativeness in sampling the common tasks of teaching. Involvement of others in the rewording of items will undoubtedly contribute to enhanced communication. Regrouping of items may lead to further usefulness of the instrument for inventory or diagnostic purposes.

Second, replication studies with other groups and larger numbers may serve to substantiate or modify the several findings of the present study. Its scope may be extended by the introduction of additional criteria as bases for judging the items. A rating scale with more than three degrees may warrant trial, although for group results the present scale seemed adequate, and because of its simplicity, desirable.

Third, the development of a series of specialized checklists may be attempted, adapting the general teacher competencies to the form and needs of special teaching fields such as the teaching of social studies or of science. Adaptations to the several grade levels such as early childhood education or the teaching of secondary English may be in order, as may be those that take into account a particular educational point of view such as that embodied in the open classroom.

Fourth, the Checklist may be expanded quite extensively in terms of attempts to evolve additional items reflecting positions in a taxonomic scheme of one kind or another. For example, a presently listed item may represent one or another aspect of the cognitive-affective-psychomotor spectrum on a scale or chart of organismic psychological functions. Theoretically, it should be possible to generate other items related to the present one but expressing some other point on this spectrum. Within any

of the "domains", such as the affective domain in the taxonomy of educational objectives worked up by Krathwohl and others, a number of reformulations of any given item may be made. A further variant might well be in terms of level or complexity of mastery keyed to the unavoidable necessity of setting competency standards for different grades of professional potential from semi- or para-professional to full, master professional.

Fifth, the items of the Checklist may be reformulated or supplemented to provide criterial statements in the evaluation of personnel by self or others that may help in designing instruments or other procedures for measuring or determining competencies.

Sixth, the items of the Checklist may be used as a point of departure for undertaking inquiries as to the best instrumentalities to employ in the attempt to achieve selected masteries.

Seventh, curriculum committees at the course or program levels may find the Checklist useful in arriving at agreements as to which competencies to include as objectives in any given course or sequence of professional learning experiences.

Eighth, persons concerned with the educational process affecting the preparation of teachers may use the Checklist to make explicit attitudes toward the several competencies as a basis for discussion of differences in judged worth or with respect to other criteria.

Ninth, the characteristics of the several competencies may be studied more fully with the employment of a panel of judges to test a wide

range of hypotheses as to what might make an item "tick" in one respect or another. Such group judgments as to item characteristics, when related to independent criterial judgments by other groups of respondents, may serve to reveal inner mental operations in respect to the formation of attitudes toward the competencies. By extension, the technique proposed in the present study is applicable to attitudes in general, whether related to professional competencies or otherwise.

Tenth, in the same vein, the development and study of competencies here suggested for the teaching profession is equally applicable to other professions.

Eleventh, once the competencies have been set forth in succinct form, they may be studied in terms of the research or other basis on which their underlying ideas rest, or, associated subjectmatter may be collated around the competency statements, thereby facilitating the "validation" of the competency or the development of instructional material in relation to it.

Twelfth, the problem of the application of psychoeducational and other ideas to teaching practice may be indirectly attacked by ascertaining the application made of individual competencies or their underlying ideas, and correlating the extent of such application with item characteristics formulated to reflect various hypotheses as to factors that determine the extent to which an idea may be transformed into practice.

Finally, work with competencies, based as it is on an effort to transform a more or less complete compendium of useful ideas into the form of succinct statements, may well lead into the systematization of

the disciplinary fields that go to make up education, academically or professionally viewed, and hence contribute to the formulation of a more systematic discipline of education.

Thus, the report is concluded on a note of open-ended challenge to much further thought and effort.

Appendix A: The Teacher Competencies Checklist (TECOMP I) Together with Decile Indicators of the Mean Item Ratings in Importance and Placement by Each Group of Respondents, and the Categorical Classification of Items Under Each of Five Characteristics.

KEY TO APPENDIX A

Appendix A reproduces the Checklist in five sections of 30 items each. Marginal entries have been added to indicate mean ratings of items and how the items had been descriptively categorized by the writer.

At the left, the headings A, B, C, D, and E refer respectively to the four respondent groups and the total group, as follows:

A: Thirty-one students in the writer's undergraduate course in Educational Psychology;
B: Twenty student teachers supervised by the field associates who comprised Group C;
C: Thirty-six college field associates, teachers enrolled in a graduate supervisory training course of study;
D: Twenty-eight teachers enrolled in the writer's graduate course in Educational Psychology; and
E: The total of the above four groups, equally weighted.

In the left hand margin under these headings the mean Importance and Placement ratings for each item as made by each of the five groups is represented in terms of decile rank within the distribution of each group. In order to avoid the use of the two-place number 10, the highest decile has been dssignated 9 instead of 10, and so on down to 0, which represents the 1st, or lowest decile.

The top set of decile values next to each item refers to the mean Importance ratings of the item, while the lower set is based on the mean Placement ratings, in each case under the column headed by the appropriate group designation A through E. Thus, Item 3 illustrates an instance of relatively low ratings of Importance and of suggested very early Placement in the teacher education program as judged by each of the five groups. Item 6 illustrates relative low Importance ratings as well, but later Placement with the exception of intermediate Placement as judged by the D group of graduate students in Educational Psychology.

The right hand margin presents the writer's categorization of each item according to the following key:

G: General versus S: Specific in nature;
F: Foundational versus A: Applicational;
K: Knowing versus D: Doing in orientation;
P: Psychological versus E: Educational in emphasis; and
L: Low versus H: High in technicality.

Thus, Item 1 is characterized as General, Foundational, Knowing, Educational, and Low in Technicality.

TEACHER COMPETENCIES CHECKLIST (TECOMP I)*

DECILES Group: ABCDE		Item Categories
	I. Learner Objectives, Readiness, and Motivation	
41201 10000	1. Can state the general goals and purposes of education in contemporary society.	GFKEL
57687 42333	2. Is able to relate a given set of educational objectives to the several basic needs of children and adults.	GFDPH
00000 10000	3. Can state the developmental stages or crises, such as those related to trust, autonomy, and identity, that may serve as sources of fundamental psychoeducational objectives.	GFKPH
75677 12452	4. For a given teaching unit, is able to state its objectives in terms of specific anticipated or intended changes in the learner's knowledge and understanding, in his attitudes, interests, and values, and in his psychomotor performance skills.	SADPH
72946 52162	5. Can relate the specific and broad objectives of a teaching unit to those of the individual lessons that constitute it.	SAKEL
01000 9[illegible]	6. In the course of learning, can trace the progression of mastery in the affective domain from passive awareness to the incorporation into one's character, personality, or automatic responses of the element to be learned.	GAKPH
03101 84213	7. Is able to sense the extent to which an educational objective is clearly expressed in overt, determinable, behavioral terms.	GAKPH
54925 57636	8. Can apply a given set of objectives as criteria in judging teaching procedures, in selecting curricular materials, and in developing test questions or other means of appraising pupil learning.	GADEL
75245 47254	9. Knows how appropriately to share with learners knowledge of the objectives of a given lesson or teaching-learning unit.	SADEL
72746 49888	10. Can relate decisions regarding curriculum selection, organization, and sequencing to the educational objectives of a unit or subject.	GADEL

* Prepared by Harold H. Abelson, The City University of New York

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
69948 55735	11. Is adept at guiding and directing the course of pupil activities in a lesson in accordance with the requirements of designated objectives.	GADEH
00010 21000	12. Can set forth the main characteristics of the kinds of persons we would like the total educational program to produce.	GFKEH
31222 00000	13. Is familiar with the concept of identity as applied to the development of "self" and in terms of the reference groups to which a person belongs.	SFKPH
89999 44664	14. In planning a teaching unit, can organize one's thinking about learner readiness in terms of the potentialities of the learner, his immediate abilities and learning characteristics, and appropriate objectives and expectancies.	GFKEH
96899 87988	15. Where adaptations in a planned unit are called for, can select and apply instructional procedures appropriate to the learner's developmental status and realistic expectancies.	SADPH
42633 94546	16. Can recognize the appropriateness of designated curricular material to the pupil's cognitive, psychodynamic, and/or psychomotor stage of development.	GFKPH
96999 89878	17. Can make strategic decisions as to whether and to what extent the teaching unit as planned needs to be adapted to learner readiness or whether preparatory or other instruction should be provided.	SADEL
46957 49537	18. Is familiar with the procedures for ascertaining the status and the shortcomings of individual learners as to readiness to enter upon the teaching unit.	SADEH
52775 67626	19. Can formulate a program of readiness development prerequisite to the presentation of a given teaching unit to be applied to a group of pupils.	SADEH
51754 78726	20. Can formulate a program of readiness development prerequisite to the presentation of a given teaching unit to be applied to an individual pupil.	SADEH

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
64524 66445	21. In selecting and utilizing audio-visual and other learning resource material, is able to take into account the interests of pupils.	GADPL
76556 78747	22. In selecting and utilizing audio-visual and other learning resource material, is able to take into account the background of knowledge and the capabilities of pupils.	GADPL
44254 63385	23. Is readily able to survey the neighborhood and community to determine physical, social, and cultural characteristics that might affect the pupils and their educational performance.	GADEH
98999 02010	24. In planning the motivation of a teaching unit, considers the need to arouse the attention and interest of the learner.	SAKPL
72163 11020	25. Is familiar with the changing types of incentives or rewards to which children at various stages of development are responsive.	GFKPL
65576 12111	26. Is aware of the socio-economic-cultural differences that may affect the incidence of the several incentives or motivational appeals in an individual or a group.	SFKPH
21372 34354	27. Knows how to maximize reliance on intrinsic sources of motivation.	SADPH
32132 57154	28. Can differentiate among the several types of motivational appeal according to their likelihood of achieving sustained learning activity.	SAKEL
84888 67867	29. Is capable of controlling the anxiety level of learners when assigning tasks so as to stimulate sufficient activity arousal while keeping the anxiety level low enough to prevent interference with productive behavior.	SADPH
87799 52474	30. Through selection or invention, can produce a plentiful and varied set of ideas for motivating units in the curriculum area for which one is responsible.	SADEL

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
	II. Teacher Roles and Pupil Interactions	
10030 00100	31. Can specify the main factors that determine the roles teachers are likely to play and the way they play their roles.	GFKEH
20020 22112	32. Is aware of the relation of the teacher's choice of role to his teaching style.	GAKEH
52274 31142	33. Is aware of the way roles played by the teacher, as one member of a relationship pair, affects the roles adopted by pupils.	SAKPH
40111 44253	34. Is aware of the relation between the teacher's choice of roles and the importance he or she ascribes to the several aspects of the child's makeup as regards cognitive, psychodynamic, and actional personality elements.	GFKPH
43253 51232	35. Can delineate the responsibilities of teachers with respect to each of the components of the teaching-learning process such as: educational objectives, curriculum, teaching procedures, classroom management and governance, pupil relationships, and school and community relations.	GAKEH
98768 20211	36. Is familiar with specific teacher functions such as: task orientation, directing learning activities, telling and explaining, securing pupil participation, providing learning materials, stimulating thinking, and evaluating pupil mastery.	GADEH
30000 11121	37. Can specify the ways teachers play direct or ancillary psychological or mental health roles in studying and handling children.	SAKPH
02000 21000	38. Can specify the ways in which teachers serve both to preserve social values and as change advocates in seeking adaptations in order to meet the needs of children and adults more fully.	GAKPH
30000 01000	39. Can conceive of teaching as the facilitation of learning and growth through the intentional manipulation of the environment, psychologically considered.	GFKPH
35222 11111	40. Is aware of the range of teaching functions from direct instructional intervention to indirect guidance of largely self-generated learner behavior.	GFKEH

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
46897 77657	41. Can assume the role of classroom manager with easy efficiency.	SADEL
54323 99999	42. Is effective in working with other school personnel in team, grade committee, or task force relationships.	SADEL
77788 33613	43. Can apply instructional procedures in a warm, understanding, and friendly manner.	SADEL
99889 33533	44. Can apply instructional procedures in a stimulating, imaginative, and energetic manner.	SADEL
00020 36423	45. Can apply instructional procedures in a responsible, business-like, and systematic manner.	SADEL
64476 66877	46. Can serve as a behavioral model in respect to temperament and emotional response to potentially upsetting stress situations.	SADEH
44565 53585	47. Can serve as a model for pupil identification with respect to interpersonal behavior and character.	SADEH
40072 69778	48. Can reconcile and integrate the teacher's professional roles with one another and with his or her several personal roles.	GAKPL
84566 67988	49. Can set progressive, realistic goals and levels of improvement in professional performance.	GFDEL
02131 98999	50. Is appropriately responsive to supervisory and other opportunities that might result in professional growth.	GADEH
61001 30301	51. Can utilize bibliographic and other sources of ideas possibly helpful in the planning and execution of his or her teaching.	GFDPL
20221 00100	52. Is aware of the presence of the teaching-learning process in non-school educational agencies and in life generally, as well as in school-oriented operations.	GFKEL
51864 31162	53. Can identify the main features of a wholesome and productive classroom and school educational climate.	SFKEL
82355 66576	54. Can share decisions with learners as to the choice of learning tasks, procedures to be followed, and ways of examining learning outcomes.	SADEL

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE			Item Categories
93245 63915	55.	Can make, interpret, and utilize a classroom interaction analysis indicating such information as teacher versus pupil initiative, teacher reactions to pupil statements and responses, and the nature of pupil-to-pupil interchanges.	SADPL
85698 79949	56.	Is skillful in eliciting individual talents and encouraging the productive utilization of group resources.	SADPL
37897 98989	57.	Is skillful in implementing such instructional forms of grouping as pupil pairings for tutorial purposes, class subgroupings for individualized instruction, and committee groupings for special assignments and projects.	SADEL
10171 44665	58.	Is skillful in applying the principles of group dynamics through dramatization, role playing, and sociogrammic realignment.	SADPH
53845 33453	59.	Can behave in a manner conducive to the development of group morale, identification, and cohesiveness.	SADPH
67487 21021	60.	Can contribute to intergroup relations and improved self-realization of minority group aspirations through an appreciation of the cultural characteristics and attainments of ethnic subgroups and a sensitivity to the feelings of members of the several minority groups.	SADPH

III. Curriculum and Materials

53686 02512	61.	Can organize one's thinking about curriculum problems in terms of the selection, organization, and sequencing of content, experiences, and activities.	GFKEL
66656 02221	62.	Is knowledgeable with regard to the subject to be taught in terms of its basic organization, conceptual principles, and methods of inquiry or techniques.	GFKPH
66857 06122	63.	Is familiar with the content of the course(s) of study appropriate to the subject or subject to be taught.	SFKEL
34855 77487	64.	Is able to determine the curriculum material to be included in a given teaching-learning unit to be conducted in a designated setting with a stated group of pupils.	SADEL

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
76868 78888	65. Is able to adapt the selection and presentation of curricular materials in the course of the conduct of a teaching unit in accordance with feedback information based on pupil response.	SADEL
04311 86425	66. Is able to correlate or integrate curricular materials from two or more subjects in a given instructional setting.	GADEH
79588 54424	67. Is capable of finding and introducing appropriately stimulating curriculum materials for instructional enrichment.	SADEL
12563 11411	68. Is familiar with gamelike and simulation activities suitable for enhancing interest and inducing learning in designated units or subjects.	SAKEH
47698 01211	69. Is familiar with activities suited to the stimulation of creative thinking or performance in a designated unit or subject.	SAKEH
65645 54614	70. Can transform curriculum topical items into thought-provoking questions and tasks.	SADEH
14201 99779	71. Can adjust the amount and kind of advance curriculum selection and planning to the paricularized requirements of a teaching unit or educational setting.	SADEL
65466 21111	72. In planning a lesson or unit, can identify the leading ideas to be included and distinguish them from elaborative details.	SADPL
77557 12111	73. Can analyze or break down difficult or complex topics into smaller, manageable elements.	GADPH
89447 11000	74. Can translate abstract and intangible ideas into concrete and understandable terms.	GADEH
45345 23263	75. Can group items to be learned and sequence their presentation in such a manner as to further meaningful grasp.	GADEH
31222 67847	76. Can detect and capitalize on the relationships between elements in two or more teaching units so as to enhance the likelihood that the study of one of the units will facilitate the learning of the other unit or units.	GADPH

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE			Item Categories
44512 57898	77.	Can judge the adequacy and appropriateness of textbook or other educational materials in their coverage of a designated unit or subject.	SADEL
16623 85877	78.	Can judge the adequacy and appropriateness of an achievement test or other appraisal device in its coverage of a designated body of curricular knowledge in relation to the objectives of a course or unit.	SADEH
03732 56587	79.	Is familiar with outstanding curriculum innovations in the subject or subjects to be taught.	GAKEH
34745 22332	80.	Is familiar with the concept of instructional materials as encompassing not only written matter, but also real objects together with the multi-sensory representation of artifacts and of phenomena.	GFKPH
14342 54254	81.	Assuming available resources, can plan a program for the use of instructional media and materials in conjunction with a stated unit or subject.	GADEH
26264 85456	82.	Is able to locate and select appropriate learning resource materials and to manage their procurement.	GADEH
33432 86867	83.	Can make educationally sound decisions as to when and how to use each of the several types of instructional media and materials.	GADEH
00000 89858	84.	Can set forth the guiding considerations in the evaluation of commercial or educational offerings in the form of radio, films, or TV programs that might be heard or viewed in conjunction with a given unit or subject of the curriculum.	SFKEH
15474 53274	85.	Is capable of making effective educational use of teacher- or pupil-made learning aids.	SADEL
06110 40041	86.	Possesses the knowledge and mechanical skills required to manipulate common teaching aids such as projectors, tape recorders, and ordinary classroon equipment.	SADPH
26655 74375	87.	Can employ the immediate environment of the classroom as a source of instructional stimulation.	SADEH

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
24443 92598	88. Can put the environment of the school as a whole, including its library and display facilities, to instructional purposes.	SADEH
06211 98499	89. Can make an appropriate survey of the neighborhood environment of a school to ascertain its resources for enriching the school curriculum.	GADPH
27434 98799	90. Can put the out-of-school environment to instructional use through assignments and/or trips.	SADEH
	IV. Teaching Procedures	
44734 01120	91. Can formulate the principal questions a teacher has to ask himself or herself in planning a teaching unit or lesson.	GADEH
72333 15242	92. Can choose and combine appropriate lesson types and teaching modes in accordance with the requirements of a given teaching unit.	GADEH
99999 22132	93. Where telling or explaining is appropriate in a lesson, is capable of communicating knowledge and ideas clearly.	SADEL
79989 62385	94. In telling or explaining, is adept at procuring feedback to determine pupil attention and understanding.	SADEH
74403 46274	95. Is fluent in thinking up ideas or illustrations that may be introduced at appropriate points in a discussion type lesson.	SADEL
65887 87487	96. Is capable of securing widespread participation in a developmental type lesson.	SADEH
98999 74566	97. Is able to provide appropriate and successful prompts to pupils having difficulty in grasping a learning or performance task.	SADEH
21522 32312	98. Is familiar with the several aspects of problem solving, and is able to incorporate them in the conduct of a problem or discovery type approach to teaching.	SADEH
01401 39434	99. Is familiar with and can carry out a project approach in conducting a teaching unit.	SADEH

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
61544 55424	100. Can conduct effectively lessons and assignments designed to enhance study skills.	SADEH
72333 47646	101. Can plan for, and assist pupils in, the execution of sound review activities to achieve fuller understanding and retention of learning materials.	SADEH
20200 66625	102. Is effective in selecting or preparing drill or other activities designed to increase retention and make responses automatic.	SADEH
48123 00000	103. Is familiar with innovative teaching programs and ideas such as the open classroom approach to teaching and learning.	GFKEH
94988 98999	104. Is able to make appropriate adaptations of one's teaching style to conform with learning styles of individual pupils or groups of pupils.	GADEH
78847 97848	105. Is adept at adapting task-oriented activities to the capabilities of individual pupils or groups of pupils.	SADEL
65947 89678	106. Is capable of estimating difficulty levels of learning tasks and assignments for a given group of pupils.	SADEH
88988 26554	107. Is adept at formulating questions suited to a particular teaching purpose, such as to arouse interest, provide reassurance, stimulate creative thought, or clarify a confusing idea.	SADEH
98979 75486	108. Is able to grasp ideas pupils are trying to express, and to help them to express their ideas more clearly.	SADEL
12211 26703	109. Can apply the principles of behavior modification, including primary and secondary reinforcement, to the achievement of performance objectives.	GADEH
13222 00331	110. Is familiar with the appropriateness and effectiveness of the several kinds of reward and punishment as applied to pupil responses in learning situations.	SAKPH
45523 45846	111. Is adept at setting up situations in which knowledge of success or the correctness of responses is built into the learning performance.	SADEL

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
25302 10301	112. Is familiar with the methods of developing appreciation abilities in such fields as literature, art, and social studies.	SAKEH
98999 43623	113. Is capable of conducting activities and of relating to pupils with a view toward enhancing the pupils' self knowledge and self image.	SADEL
44534 68767	114. Is capable of helping pupils enhance their interest patterns in both a quantitative and a qualitative sense.	SADEL
35555 87868	115. Is capable of effecting a class setting and of instituting activities calculated to enhance the social traits of pupils.	SADEL
11010 24723	116. Is familiar with the procedure for teaching a concept in the sense of a single idea or generalized notion through the inductive use of positive and negative instances and by associational, or non-inductive methods.	SFKEH
00000 35534	117. Can parcel out learning activities in keeping with the principle of using psychologically sound whole units.	GADEH
61252 67767	118. Is effective in directing learning activities so as to achieve appropriate generalization and transfer.	GADEH
20141 04322	119. Can organize one's thinking about a teaching unit or a lesson in terms of a conceptual model of the teaching-learning process.	GADEL
75144 37665	120. Can adapt one's thinking about the conduct of a teaching-learning unit to conform with the requirements of different community settings.	GADEL
	V. Pupil Behavior, Appraisal, and Individualization	
69598 00000	121. Can conceive of the individual pupil as a behaving, growing, learning person with idiosyncratic personality characteristics who is engaged in a continual adaptation with his or her environment.	GFKPH
56376 20000	122. Can recognize in a child's present behavior characteristics that reflect critical elements in the developmental stages through which individuals normally progress.	GFKPH

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group; ABCDE		Item Categories
15273 53052	123. Can interpret a child's behavior within the normal range in terms of underlying dynamic and adjustive mechanisms.	GAKPH
37386 81987	124. Is capable of helping pupils to formulate and execute a suitable code of behavior in school.	SADEL
89999 45455	125. Can control class behavior in general and that of troublesome, but not seriously disturbed, children.	SADEH
99999 57566	126. Is capable of handling individual instances of disruptive behavior in the classroom in a constructive way.	SADEL
59788 10241	127. Is alert to safety requirements as applied to various types of school activities.	SAKEH
98899 46624	128. Is able to detect tension in a classroom situation and to introduce appropriate relaxing activities, or otherwise deal with it.	SADEH
86888 24333	129. Is sensitive and appropriately responsive to pupil manifestations of anxiety or frustration in coping with learning or social difficulties.	SAKEH
85577 35564	130. Is capable of encouraging pupil initiative in choosing and carrying out learning activities.	SADEL
58467 65576	131. Is capable of providing needed structure in directing learners engaged in classroom activities of various types.	SADEH
21001 65867	132. Is skillful in providing appropriately structured direction to learners in out-of-school activities or assignments.	SADEL
75667 45755	133. Is capable, in conducting group lessons or individualized activities, of achieving the effective utilization of the pupils' time and effort.	SADEH
56335 67888	134. Can make an inventory of the learning difficulties of a pupil or a group of pupils with respect to a given curricular unit.	SADEH
64334 77314	135. Can state and inquire into plausible causative hypotheses to account for a given child's learning difficulties.	GAKPF

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
25253 16153	136. Through informal observation of pupils, is able to ascertain the degree and kind of attention pupils are giving the teacher's presentations and to classroom tasks.	SAKEL
36434 58466	137. Is able to analyze the pupils' modes of attacking tasks of various kinds, including their reaction to difficulties.	SADEH
76346 83486	138. Is capable of framing and conducting informal or conversational interviews with pupils that are designed to ascertain pertinent information concerning their interests, school attitudes, feelings, and problems.	SADEH
69567 99999	139. Is able to conduct appropriate interviews with parents and others regarding a pupil's school performance and educational needs.	SADEH
16713 83766	140. Can interpret test scores and other data derived from tests of general and special aptitudes and abilities.	SAKEH
74445 55524	141. Can prepare test items of various kinds suited to the determination of the pupils' mastery ofthe several types of learning outcome sought in the course of a teaching unit or lesson.	SADEH
00000 54123	142. Is able to interpret and to apply common statistical procedures used in conjunction with the employment of tests as part of a program of educational appraisal.	SADEH
47324 99899	143. Is capable of assigning grades or marks, and otherwise reporting on pupil progress, in accordance with sound educational principles.	SADEH
67968 89999	144. Is capable of determining pupil promotion or group placement on the basis of the employment of adequate information and sound criteria.	SADEH
09634 89999	145. Is sufficiently familiar with the characteristics of children with various types of exceptionality to do initial screening for referral purposes.	SAKEH
38536 95898	146. Can readily become familiar with the special school and community services available to pupils with exceptionalities in learning or adjustment.	SAKEH

TEACHER COMPETENCIES CHECKLIST (CONT.)

DECILES Group: ABCDE		Item Categories
28376 99999	147. Within the limitations of a school setting, is capable of carrying out the recommendations of specialists concerning the educational treatment of children with designated exceptionalities.	SADEH
97848 98989	148. Is able to select and assign specialized materials and activities in keeping with the capabilities of exceptional pupils and their peculiar learning needs.	SADEH
98889 65998	149. Can adapt teaching methods and modes of handling pupils to such factors as developmental stage, intellectual potentials, special disabilities and talents, inability to speak English, and socioeconomic and cultural differences.	SADEH
98999 21573	150. Can respond with understanding and appreciation to deviations in pupil behavior from one's own sociocultural expectancies.	GADEL

Appendix B. Lower and Upper Limits of Each Decile in the Distribution of Mean Item Ratings in Importance and in Placement by Each Group of Respondents.

Decile	Undergr. Ed. Psych.	Student Teachers	Field Assoc.	Graduate Ed. Psych.	Total Group
			Importance		
9	2.77-3.00	2.90-2.95	2.94-2.97	2.78-2.92	2.81-2.95
8	2.70-2.74	2.85-2.85	2.88-2.91	2.71-2.75	2.74-2.80
7	2.64-2.67	2.80-2.80	2.86-2.86	2.67-2.67	2.69-2.73
6	2.58-2.61	2.70-2.75	2.83-2.83	2.64-2.64	2.65-2.68
5	2.54-2.54	2.65-2.65	2.80-2.80	2.60-2.60	2.61-2.64
4	2.48-2.51	2.60-2.60	2.77-2.77	2.53-2.57	2.59-2.60
3	2.41-2.45	2.55-2.55	2.72-2.75	2.46-2.50	2.56-2.57
2	2.35-2.38	2.45-2.50	2.61-2.69	2.39-2.42	2.45-2.55
1	2.25-2.32	2.35-2.40	2.47-2.58	2.28-2.35	2.34-2.44
0	1.70-2.22	1.95-2.30	2.11-2.44	1.96-2.25	2.09-2.33
			Placement		
9	2.32-2.77	2.25-2.60	2.33-2.66	2.53-2.75	2.30-2.63
8	2.22-2.29	2.20-2.20	2.22-2.30	2.46-2.50	2.23-2.29
7	2.16-2.19	2.10-2.15	2.16-2.19	2.39-2.42	2.17-2.22
6	2.09-2.12	2.05-2.05	2.11-2.13	2.32-2.35	2.12-2.16
5	2.03-2.06	2.00-2.00	2.05-2.08	2.28-2.32	2.08-2.11
4	1.96-2.00	1.90-1.95	2.00-2.05	2.25-2.28	2.03-2.07
3	1.87-1.93	1.85-1.85	1.94-1.97	2.17-2.21	1.97-2.02
2	1.77-1.83	1.75-1.80	1.86-1.91	2.10-2.14	1.86-1.96
1	1.64-1.74	1.60-1.70	1.69-1.83	2.00-2.07	1.78-1.84
0	1.48-1.61	1.20-1.55	1.33-1.66	1.42-1.96	1.44-1.77

Appendix C. Mean Item Values in Importance and Placement Ratings of the Items of the Teacher Competencies Checklist(TECOMP I) by Each Group of Respondents, and the Categorical Classification of Items Under Each of Five Item Characteristics.

Item No.	Undergr. Ed. Psych. Imp.	Pla.	Student Teachers Imp.	Pla.	Field Assoc. Imp.	Pla.	Graduate Ed. Psych. Imp.	Pla.	Total Group Imp.	Pla.	Categories P G F K H vs. E S A D L
1	2.45	1.64	2.35	1.40	2.61	1.33	2.29	1.42	2.41	1.44	E G F K L
2	2.54	2.00	2.80	1.80	2.83	1.94	2.71	2.17	2.72	1.97	P G F D H
3	2.09	1.67	2.30	1.40	2.30	1.63	2.07	1.85	2.19	1.63	P G F K H
4	2.67	1.67	2.65	1.80	2.83	2.05	2.67	2.28	2.70	1.95	P S A D H
5	2.67	2.03	2.50	1.75	2.94	1.75	2.53	2.32	2.65	1.96	E S A K L
6	2.19	2.45	2.45	2.20	2.41	2.16	2.10	2.25	2.26	2.26	P G A K H
7	2.19	2.25	2.55	1.90	2.50	1.81	2.21	2.00	2.36	2.01	P G A K H
8	2.54	2.06	2.60	2.15	2.94	2.11	2.42	2.17	2.62	2.12	E G A D L
9	2.64	1.96	2.65	2.15	2.69	1.86	2.53	2.28	2.62	2.06	E S A D L
10	2.67	2.00	2.50	2.45	2.86	2.22	2.57	2.50	2.65	2.29	E G A D L
11	2.01	2.03	2.45	2.00	2.97	2.19	2.53	2.21	2.76	2.10	E G A D H
12	1.80	1.77	1.95	1.65	2.22	1.55	2.32	1.67	2.09	1.66	E G F K H
13	2.45	1.48	2.35	1.30	2.61	1.38	2.42	1.75	2.45	1.47	P S F K H
14	2.70	1.96	2.95	1.90	2.97	2.13	2.85	2.32	2.96	2.07	E G F K H
15	2.77	2.22	2.70	2.15	2.91	2.36	2.89	2.46	2.81	2.29	P S A D H
16	2.43	2.32	2.50	1.95	2.33	2.05	2.50	2.28	2.37	2.15	P G F K H
17	2.83	2.29	2.70	2.25	2.94	2.25	2.78	2.39	2.81	2.29	E S A D L
18	2.48	2.00	2.75	2.40	2.94	2.08	2.60	2.21	2.69	2.17	E S A D H
19	2.54	2.12	2.45	2.15	2.86	2.11	2.67	2.14	2.63	2.13	E S A D H
20	2.54	2.19	2.40	2.20	2.86	2.16	2.60	2.10	2.59	2.16	E S A D H
21	2.61	2.12	2.60	2.05	2.80	2.05	2.39	2.25	2.59	2.11	P G A D L
22	2.64	2.16	2.70	2.20	2.80	2.16	2.60	2.25	2.68	2.19	P G A D L
23	2.51	2.12	2.60	1.85	2.69	1.64	2.60	2.46	2.59	2.03	E G A D H
24	2.80	1.61	2.85	1.75	2.97	1.55	2.89	2.03	2.87	1.73	P S A K L
25	2.64	1.64	2.45	1.70	2.55	1.55	2.64	2.10	2.57	1.74	P G F K L
26	2.58	1.67	2.65	1.75	2.80	1.69	2.67	2.03	2.67	1.78	P S F K H
27	2.38	1.93	2.40	1.90	2.72	1.97	2.67	2.32	2.54	2.03	P S A D H
28	2.41	2.03	2.50	2.10	2.58	1.83	2.46	2.28	2.48	2.05	E S A K L
29	2.74	2.09	2.60	2.10	2.88	2.30	2.75	2.35	2.74	2.21	P S A D H
30	2.74	2.06	2.80	1.75	2.86	2.02	2.82	2.42	2.82	2.06	E S A D L
31	2.25	1.58	2.20	1.55	2.11	1.50	2.46	1.96	2.25	1.72	E G F K H
32	2.38	1.63	2.05	1.60	2.16	1.83	2.42	2.00	2.20	1.86	E G F K H
33	2.54	1.87	2.50	1.65	2.69	1.72	2.67	2.25	2.59	1.87	P S A K H
34	2.48	1.96	2.30	1.90	2.55	1.91	2.32	2.28	2.41	2.01	P G F K H
35	2.51	2.06	2.55	1.70	2.66	1.91	2.60	2.17	2.57	1.96	E G A K H
36	2.77	1.80	2.85	1.55	2.86	1.86	2.64	2.07	2.78	1.81	E G A D H
37	2.45	1.70	2.30	1.60	2.44	1.77	2.14	2.10	2.33	1.79	P S A K H
38	2.19	1.77	2.45	1.60	2.16	1.55	2.14	1.64	2.23	1.64	P G A K H
39	2.45	1.58	2.30	1.60	2.36	1.58	2.17	1.92	2.32	1.67	P G F K H
40	2.45	1.64	2.65	1.70	2.69	1.83	2.42	2.07	2.55	1.80	E G F K H
41	2.51	2.19	2.75	2.10	2.88	2.13	2.78	2.28	2.73	2.17	E S A D L
42	2.54	2.41	2.60	2.40	2.72	2.58	2.39	2.71	2.56	2.52	E S A D L
43	2.67	1.93	2.80	1.85	2.86	2.11	2.75	2.07	2.76	1.99	E S A D L
44	2.77	1.87	2.90	1.85	2.91	2.05	2.75	2.21	2.83	1.99	E S A D L
45	1.96	1.90	1.95	2.05	2.33	2.05	2.39	2.10	2.15	2.02	E S A D L
46	2.58	2.12	2.60	2.05	2.77	2.22	2.67	2.39	2.65	2.19	E S A D H
47	2.51	2.06	2.60	1.85	2.80	2.05	2.64	2.50	2.63	2.11	E S A D H
48	2.48	2.09	2.30	2.25	2.41	2.16	2.67	2.42	2.46	2.23	P G A K L
49	2.70	2.04	2.60	2.10	2.80	2.41	2.64	2.60	2.68	2.27	E G F D L
50	2.16	2.35	2.45	2.20	2.47	2.66	2.46	2.64	2.38	2.46	E G A D H

Appendix C. Mean Item Values in Importance and Placement Ratings of the Items of the Teacher Competencies Checklist(TECOMP I) by Each Group of Respondents, and the Categorical Classification of Items Under Each of Five Item Characteristics (Cont.).

Item No.	Undergr. Ed. Psych. Imp.	Undergr. Ed. Psych. Pla.	Student Teachers Imp.	Student Teachers Pla.	Field Assoc. Imp.	Field Assoc. Pla.	Graduate Ed. Psych. Imp.	Graduate Ed. Psych. Pla.	Total Group Imp.	Total Group Pla.	Categories P G F K H vs. E S A D L
51	2.61	1.90	2.35	1.55	2.44	1.94	2.14	1.85	2.38	1.80	P G F D L
52	2.38	1.48	2.30	1.25	2.66	1.77	2.42	1.96	2.44	1.61	E G F K L
53	2.54	1.87	2.35	1.65	2.88	1.83	2.64	2.32	2.60	1.91	E S F K L
54	2.70	2.12	2.45	2.05	2.75	2.08	2.60	2.39	2.62	2.16	E S A D L
55	2.80	2.12	2.55	1.85	2.61	2.36	2.53	2.33	2.62	2.09	P S A D L
56	2.70	2.19	2.65	2.40	2.83	2.41	2.92	2.28	2.77	2.32	P S A D L
57	2.41	2.41	2.80	2.20	2.91	2.41	2.78	2.50	2.72	2.38	E S A D L
58	2.29	2.00	2.25	1.90	2.58	2.13	2.67	2.35	2.44	2.09	P S A D H
59	2.54	1.90	2.55	1.85	2.88	2.00	2.53	2.28	2.62	2.00	P S A D H
60	2.61	1.80	2.90	1.60	2.77	1.86	2.71	2.10	2.72	1.78	P S A D H
61	2.54	1.54	2.55	1.80	2.83	2.06	2.71	2.17	2.65	1.87	E G F K L
62	2.61	1.48	2.70	1.80	2.83	1.86	2.60	2.14	2.68	1.81	P G F K H
63	2.61	1.58	2.70	2.05	2.88	1.69	2.60	2.14	2.69	1.86	E S F K L
64	2.45	2.16	2.60	2.15	2.88	2.00	2.60	2.46	2.63	2.19	E S A D L
65	2.67	2.16	2.75	2.20	2.91	2.25	2.64	2.46	2.74	2.26	E S A D L
66	2.06	2.25	2.60	2.05	2.72	2.05	2.35	2.10	2.43	2.11	E G A D H
67	2.67	2.06	2.90	1.90	2.80	2.02	2.71	2.14	2.76	2.03	E S A D L
68	2.32	1.64	2.50	1.60	2.80	2.02	2.64	2.03	2.56	1.82	E S A D H
69	2.48	1.61	2.80	1.65	2.83	1.86	2.85	2.07	2.74	1.79	E S A D H
70	2.58	2.06	2.65	1.95	2.83	2.11	2.53	2.03	2.64	2.03	E S A D H
71	2.32	2.35	2.60	2.40	2.61	2.19	2.21	2.31	2.43	2.33	E S A D L
72	2.58	1.77	2.65	1.70	2.77	1.69	2.64	2.00	2.66	1.78	P S A D L
73	2.64	1.67	2.80	1.50	2.80	1.75	2.60	2.03	2.71	1.81	P G A D H
74	2.70	1.67	2.90	1.70	2.77	1.66	2.53	1.96	2.72	1.74	E G A D H
75	2.51	1.83	2.65	1.85	2.75	1.91	2.57	2.35	2.61	1.98	E G A D H
76	2.41	2.12	2.40	2.10	2.69	2.22	2.39	2.25	2.47	2.17	P G A D H
77	2.48	2.03	2.60	2.10	2.80	2.22	2.32	2.60	2.55	2.23	E S A D L
78	2.32	2.22	2.75	2.00	2.83	2.25	2.42	2.42	2.57	2.22	E S A D H
79	2.22	2.06	2.55	2.05	2.86	2.08	2.50	2.50	2.53	2.17	E G A K H
80	2.45	1.80	2.60	1.80	2.86	1.97	2.53	2.17	2.61	1.93	P G F K H
81	2.32	2.06	2.60	1.95	2.75	1.86	2.57	2.28	2.55	2.03	E G A D H
82	2.38	2.29	2.70	2.00	2.66	2.00	2.64	2.28	2.59	2.14	E G A D H
83	2.45	2.25	2.55	2.05	2.77	2.22	2.46	2.35	2.55	2.21	E G A D H
84	2.09	2.22	2.30	2.30	2.41	2.25	2.28	2.32	2.26	2.27	E S F K H
85	2.32	2.06	2.65	1.85	2.77	1.88	2.67	2.39	2.60	2.04	E S A D L
86	1.70	2.00	2.70	1.45	2.58	1.66	2.35	2.25	2.33	1.84	P S A D H
87	2.35	2.16	2.75	1.95	2.83	1.94	2.60	2.42	2.63	2.11	E S A D H
88	2.38	2.48	2.60	1.80	2.77	2.08	2.57	2.60	2.57	2.24	E S A D H
89	2.09	2.38	2.70	2.20	2.63	2.02	2.28	2.60	2.42	2.30	P G A D H
90	2.35	2.54	2.80	2.20	2.77	2.16	2.46	2.67	2.53	2.39	E S A D H
91	2.51	1.61	2.60	1.60	2.86	1.80	2.46	2.10	2.60	1.77	E G A D H
92	2.64	1.74	2.45	2.00	2.72	1.86	2.50	2.25	2.57	1.96	E G A D H
93	3.00	1.83	2.95	1.75	2.94	1.83	2.92	2.17	2.95	1.89	E S A D L
94	2.77	2.09	2.95	1.80	2.94	1.94	2.75	2.50	2.85	2.08	E S A D H
95	2.64	1.96	2.60	2.05	2.77	1.88	2.25	2.42	2.56	2.07	E S A D L
96	2.58	2.29	2.65	2.10	2.80	2.00	2.71	2.46	2.70	2.21	E S A D H
97	2.90	2.16	2.85	1.95	2.94	2.05	2.78	2.35	2.86	2.12	E S A D H
98	2.38	1.87	2.40	1.80	2.80	1.94	2.39	2.00	2.49	1.90	E S A D H
99	2.06	1.90	2.35	2.25	2.77	2.00	2.25	2.17	2.35	2.07	E S A D H
100	2.61	2.03	2.40	2.00	2.80	2.05	2.57	2.14	2.59	2.05	E S A D H

Appendix C. Mean Item Values in Importance and Placement Ratings of the Items of the Teacher Competencies Checklist(TECOMP I) by Each Group of Respondents, and the Categorical Classification of Items Under Each of Five Item Characteristics (Cont.).

Item No.	Undergr. Ed. Psych. Imp.	Pla.	Student Teachers Imp.	Pla.	Field Assoc. Imp.	Pla.	Graduate Ed. Psych. Imp.	Pla.	Total Group Imp.	Pla.	Categories P G F K H vs. E S A D L
101	2.64	2.00	2.45	2.15	2.75	2.11	2.46	2.28	2.57	2.13	E S A D H
102	2.38	2.12	2.15	2.05	2.61	2.13	2.17	2.14	2.32	2.11	E S A D H
103	2.48	1.61	2.85	1.50	2.58	1.47	2.39	1.71	2.57	1.57	E G F K H
104	2.77	2.45	2.60	2.20	2.94	2.33	2.71	2.57	2.75	2.38	E G A D H
105	2.64	2.38	2.55	2.15	2.88	2.25	2.53	2.25	2.72	2.25	E S A D L
106	2.61	2.25	2.65	2.40	2.94	2.11	2.57	2.39	2.69	2.26	E S A D H
107	2.74	1.83	2.85	2.05	2.94	2.05	2.71	2.28	2.80	2.05	E S A D H
108	2.77	2.16	2.85	2.00	2.97	2.05	2.67	2.46	2.81	2.16	E S A D L
109	2.25	1.83	2.50	2.05	2.66	2.19	2.32	1.92	2.43	1.99	E G A D H
110	2.29	1.58	2.55	1.55	2.66	1.94	2.39	2.17	2.47	1.80	P S A K H
111	2.48	2.00	2.65	2.00	2.80	2.25	2.39	2.25	2.57	2.12	E S A D L
112	2.38	1.74	2.65	1.55	2.75	1.94	2.21	1.96	2.49	1.79	E S A K H
113	2.83	1.96	2.85	1.85	2.94	2.11	2.82	2.14	2.86	2.01	E S A D L
114	2.51	2.12	2.60	2.20	2.80	2.19	2.46	2.35	2.59	2.21	E S A D L
115	2.41	2.25	2.65	2.15	2.80	2.30	2.60	2.35	2.61	2.26	E S A D L
116	2.25	1.83	2.35	1.90	2.41	2.16	2.32	2.14	2.33	2.00	E S F K H
117	2.16	1.87	2.15	2.00	2.44	2.05	2.25	2.21	2.25	2.03	E G A D H
118	2.58	2.09	2.40	2.15	2.63	2.16	2.60	2.32	2.55	2.17	E G A D H
119	2.35	1.61	2.25	1.90	2.52	1.94	2.53	2.10	2.41	1.88	E G A D L
120	2.64	1.90	2.65	2.15	2.55	2.11	2.57	2.32	2.60	2.11	E G A D L
121	2.61	1.61	2.95	1.20	2.90	1.55	2.92	1.82	2.79	1.54	P G F K H
122	2.54	1.77	2.70	1.50	2.72	1.55	2.67	1.92	2.65	1.68	P G F K H
123	2.32	2.03	2.65	1.85	2.61	1.61	2.67	2.28	2.56	1.94	P G A K H
124	2.41	2.22	2.80	1.70	2.75	2.36	2.75	2.46	2.67	2.18	E S A D L
125	2.70	1.96	2.95	2.00	2.94	2.05	2.78	2.32	2.84	2.08	E S A D H
126	2.77	2.03	2.95	2.15	2.94	2.05	2.82	2.35	2.86	2.14	E S A D L
127	2.54	1.74	2.95	1.50	2.86	1.86	2.71	2.25	2.76	1.83	E S A D H
128	2.83	2.00	2.85	2.05	2.91	2.11	2.78	2.14	2.84	2.07	E S A D H
129	2.70	1.83	2.75	1.95	2.88	1.94	2.75	2.21	2.76	1.98	E S A D H
130	2.70	1.90	2.65	2.00	2.80	2.08	2.67	2.32	2.70	2.07	E S A D L
131	2.54	2.12	2.85	2.00	2.77	2.08	2.64	2.39	2.70	2.14	E S A D H
132	2.35	2.12	2.40	2.00	2.44	2.27	2.17	2.32	2.34	2.17	E S A D L
133	2.64	1.96	2.65	2.00	2.83	2.19	2.64	2.32	2.69	2.11	E S A D H
134	2.54	2.12	2.70	2.10	2.75	2.30	2.46	2.46	2.61	2.24	E S A D H
135	2.58	2.19	2.60	2.10	2.75	1.94	2.50	2.07	2.60	2.07	P G A K H
136	2.35	1.74	2.65	2.05	2.69	1.83	2.60	2.28	2.57	1.97	E S A K L
137	2.41	2.06	2.70	2.20	2.77	2.05	2.50	2.32	2.59	2.15	E S A D H
138	2.67	2.22	2.75	1.85	2.72	2.02	2.53	2.46	2.66	2.13	E S A D H
139	2.58	2.77	2.90	2.35	2.80	2.63	2.64	2.64	2.73	2.59	E S A D H
140	2.32	2.22	2.75	1.85	2.86	2.19	2.32	2.32	2.56	2.14	E S A K H
141	2.64	2.03	2.60	2.00	2.77	2.08	2.53	2.14	2.63	2.06	E S A D H
142	2.03	2.06	2.25	1.90	2.30	1.83	1.96	2.10	2.13	1.97	E S A D H
143	2.48	2.32	2.80	2.30	2.72	2.25	2.42	2.60	2.60	2.36	E S A D H
144	2.58	2.29	2.80	2.55	2.97	2.52	2.64	2.64	2.74	2.50	E S A D H
145	2.19	2.29	2.90	2.30	2.83	2.50	2.46	2.64	2.59	2.43	E S A K H
146	2.45	2.35	2.85	2.00	2.80	2.27	2.50	2.57	2.65	2.29	E S A K H
147	2.38	2.58	2.85	2.60	2.72	2.61	2.67	2.75	2.65	2.63	E S A D H
148	2.77	2.32	2.80	2.20	2.86	2.44	2.53	2.50	2.74	2.36	E S A D H
149	2.93	2.12	2.85	2.00	2.88	2.36	2.75	2.53	2.85	2.25	E S A D H
150	2.80	1.83	2.85	1.65	2.94	2.05	2.89	2.39	2.86	1.98	E G A D L

Appendix D. Major Training Emphasis Prior to, During, and After Student Teaching Suggested for Each TEXCOMP I Item by Each Respondent Group Together with the Mean Importance and Placement Ratings by the Total Group.

Item No.	Total Group					Percent											
	Mean Rating		Percent			Undergrad. Ed. Psych.			Graduate Ed. Psych.			Student Teachers			Field Associates		
	Imp.	Pla.	P	D	A	P	D	A	P	D	A	P	D	A	P	D	A
1	2.41	1.44	70	15	15	58	19	23	75	7	18	75	10	15	72	22	6
2	2.72	1.97	31	40	29	35	29	36	25	32	43	35	50	15	28	50	22
3	2.19	1.63	55	25	20	58	16	26	39	36	25	75	10	15	47	39	14
4	2.70	1.95	24	56	20	45	42	13	14	43	43	25	70	5	14	67	19
5	2.65	1.98	23	53	19	23	51	26	7	54	39	30	65	5	31	64	5
6	2.26	2.76	16	40	44	13	29	58	21	32	47	20	40	40	11	58	31
7	2.36	2.01	26	46	28	19	36	45	32	36	32	30	50	20	25	58	17
8	2.62	2.12	20	58	22	23	48	29	25	32	43	15	55	30	19	50	31
9	2.62	2.06	17	42	41	23	58	19	11	50	39	10	65	15	25	64	11
10	2.65	2.29	14	43	43	23	55	22	11	29	61	10	35	55	14	50	36
11	2.76	2.10	13	62	25	19	58	23	14	50	36	15	70	15	0	69	25
12	2.09	1.66	60	12	28	58	6	36	57	18	25	65	5	30	61	19	20
13	2.45	1.47	69	15	16	68	16	16	47	32	21	85	0	15	75	11	14
14	2.86	2.07	23	46	31	36	32	32	14	39	47	25	60	15	17	53	30
15	2.81	2.39	8	54	38	10	58	32	4	46	50	10	65	25	8	45	47
16	2.57	2.15	19	46	35	10	48	42	11	50	39	35	35	30	22	50	28
17	2.31	2.29	12	46	42	19	32	49	11	39	50	5	65	30	14	47	39
18	2.69	2.17	17	49	34	23	55	22	21	36	43	10	40	50	14	64	22
19	2.63	2.13	17	46	37	19	49	32	14	57	29	20	45	35	16	56	28
20	2.59	2.16	16	45	39	16	49	35	25	39	36	15	50	35	8	67	25
21	2.59	2.11	20	48	32	26	35	39	14	47	39	25	45	30	14	67	19
22	2.68	2.19	13	54	33	22	39	39	11	53	36	10	60	30	11	61	28
23	2.59	2.09	21	48	31	29	29	42	7	39	54	25	65	10	25	56	19
24	2.87	1.73	36	54	10	48	42	10	21	54	25	30	65	5	44	56	0
25	2.57	1.74	45	24	31	55	26	19	32	25	43	40	50	10	53	39	8
26	2.67	1.78	43	34	23	55	23	23	32	32	36	40	45	15	47	36	17
27	2.54	2.03	26	44	30	29	48	23	14	39	49	30	50	20	33	36	31
28	2.48	2.05	25	43	32	26	45	29	18	36	46	25	40	35	33	50	17
29	2.74	2.21	14	50	36	26	39	35	4	57	39	20	50	30	8	53	39
30	2.82	2.06	33	34	33	32	29	39	11	36	53	45	35	20	17	64	19
31	2.25	1.72	45	34	18	58	26	15	21	61	18	55	35	10	47	25	28
32	2.25	1.86	34	46	20	36	45	19	25	50	25	35	50	15	39	39	22
33	2.59	1.87	34	45	21	32	49	19	21	32	47	40	55	5	42	44	14
34	2.41	2.01	30	38	32	32	39	29	14	43	43	40	30	30	36	36	28
35	2.57	1.96	33	37	30	35	23	42	25	32	43	40	50	10	33	42	25
36	2.78	1.81	31	56	13	35	49	16	14	64	22	50	45	5	25	64	11
37	2.33	1.79	44	32	24	51	26	23	25	39	36	55	30	15	45	33	22
38	2.23	1.64	53	28	19	48	26	26	53	29	18	55	30	15	58	25	17
39	2.32	1.67	52	28	20	62	19	19	32	43	25	55	30	15	61	19	20
40	2.55	1.80	40	38	22	55	26	19	28	36	36	40	50	10	36	42	22
41	2.73	2.17	8	66	26	6	68	26	14	43	43	5	80	15	8	70	22
42	2.56	2.52	2	43	55	6	45	49	0	29	71	0	60	40	3	36	61
43	2.76	1.99	16	69	15	19	68	13	25	43	32	15	85	0	6	78	16
44	2.83	1.99	16	68	16	19	74	7	21	36	43	15	85	0	8	78	14
45	2.15	2.08	18	60	22	26	58	16	21	47	32	15	65	20	14	64	22
46	2.65	2.19	45	51	34	26	35	39	4	53	43	15	65	20	14	50	36
47	2.63	2.11	47	55	28	19	55	26	11	29	60	20	75	5	17	61	22
48	2.46	2.23	23	31	46	32	26	42	14	29	57	20	35	45	25	33	42
49	2.68	2.27	15	43	42	23	45	32	11	29	60	20	50	30	6	47	47
50	2.38	2.46	11	32	57	13	39	48	7	21	72	20	40	40	3	28	69

Appendix D. Major Training Emphasis Prior to, During, and After Student Teaching Suggested for Each TSCOMP I Item by Each Respondent Group Together with the Mean Importance and Placement Ratings by the Total Group (Cont.).

Item No.	Total Group					Percent											
	Mean Rating		Percent			Undergrad. Ed. Psych.			Graduate Ed. Psych.			Student Teachers			Field Associates		
	Imp.	Pla.	P	D	A	P	D	A	P	D	A	P	D	A	P	D	A
51	2.38	1.80	41	36	23	39	32	29	47	21	32	50	45	5	28	47	25
52	2.44	1.61	57	25	18	64	23	13	43	18	39	75	25	0	45	33	22
53	2.60	1.91	31	40	28	32	49	19	18	32	50	55	25	20	33	50	17
54	2.62	2.16	18	47	35	16	55	29	11	39	50	30	35	35	17	58	25
55	2.62	2.09	21	49	30	19	49	32	25	46	29	25	65	10	14	36	50
56	2.77	2.32	9	50	41	16	49	35	7	57	36	5	50	45	8	42	50
57	2.72	2.38	11	40	49	10	39	51	4	43	53	20	40	40	11	36	53
58	2.44	2.09	19	50	31	26	48	26	11	43	46	35	40	25	14	58	28
59	2.62	2.00	21	57	22	29	52	19	7	57	36	25	65	10	25	50	25
60	2.72	1.78	45	30	25	12	35	23	29	32	39	60	20	20	50	33	17
61	2.65	1.87	35	43	22	58	29	13	25	43	32	40	40	20	17	58	25
62	2.68	1.81	36	46	18	55	42	3	29	29	42	35	50	15	25	64	11
63	2.69	1.86	35	32	33	51	39	10	25	36	39	25	45	30	39	53	8
64	2.63	2.19	8	65	27	6	71	23	0	54	46	15	55	30	11	78	11
65	2.74	2.26	5	63	32	10	64	26	0	54	46	5	70	25	6	64	30
66	2.43	2.11	17	55	28	19	36	45	14	61	25	20	65	25	14	67	19
67	2.76	2.03	22	52	26	26	42	32	21	43	36	35	40	25	8	81	11
68	2.56	1.82	30	57	13	39	58	3	18	61	21	50	40	10	14	69	17
69	2.74	1.79	37	44	19	52	35	13	25	43	32	50	35	15	22	70	8
70	2.64	2.03	19	58	23	23	48	29	21	53	25	20	65	15	11	67	22
71	2.43	2.33	13	40	47	16	32	52	11	39	50	5	50	45	22	36	42
72	2.66	1.78	37	44	19	42	39	19	25	50	25	45	40	15	36	58	6
73	2.71	1.81	32	54	14	49	35	16	21	54	25	30	60	10	30	64	6
74	2.72	1.71	39	47	14	45	42	13	29	46	25	40	50	10	42	50	8
75	2.61	1.98	26	50	24	39	39	22	7	50	43	30	55	15	28	53	19
76	2.47	2.17	24	35	41	29	29	42	11	47	39	30	30	40	22	33	45
77	2.55	2.23	19	46	35	29	39	32	4	32	64	20	50	30	25	28	47
78	2.57	2.22	24	29	47	19	39	42	18	21	61	30	40	30	30	14	56
79	2.53	2.17	28	27	45	32	29	39	11	29	60	35	25	40	33	25	42
80	2.61	1.93	35	37	28	39	42	19	22	39	39	45	30	25	33	36	31
81	2.55	2.09	17	55	28	23	48	29	14	43	43	25	55	20	36	42	22
82	2.59	2.14	21	44	35	23	26	51	11	50	39	20	60	20	31	39	30
83	2.55	2.21	13	51	36	13	48	39	7	50	43	20	55	25	14	50	36
84	2.26	2.27	21	30	49	26	26	48	25	18	57	15	40	45	19	36	45
85	2.60	2.04	22	51	27	23	48	29	14	32	54	25	65	10	25	61	14
86	2.33	1.84	38	40	22	29	42	29	14	47	39	60	35	5	50	33	17
87	2.63	2.11	14	60	26	10	64	26	4	50	46	25	55	20	17	72	11
88	2.57	2.24	15	46	39	3	43	52	4	32	64	35	50	15	17	58	25
89	2.42	2.30	13	43	44	16	29	55	0	39	61	15	50	35	22	53	25
90	2.59	2.39	11	38	51	10	26	64	4	25	71	10	60	30	22	39	39
91	2.60	1.77	39	44	17	55	29	16	25	39	36	50	40	10	25	69	6
92	2.57	1.96	24	55	21	39	48	13	21	32	47	20	60	20	17	80	3
93	2.95	1.89	20	70	10	26	64	10	11	60	29	25	75	0	19	78	3
94	2.85	2.08	11	69	20	16	58	26	0	50	50	20	80	0	8	89	3
95	2.56	2.07	15	56	26	29	45	26	11	36	53	10	75	15	22	67	11
96	2.70	2.21	5	68	27	6	58	36	4	46	50	5	80	15	6	88	6
97	2.86	2.12	10	66	24	6	71	23	7	50	43	20	65	15	8	78	14
98	2.49	1.90	32	45	23	35	42	23	36	28	36	35	50	15	22	61	17
99	2.35	2.07	23	47	30	32	45	23	18	46	36	15	45	40	19	61	20
100	2.59	2.05	19	56	25	23	51	26	21	43	36	20	60	20	11	72	17

Appendix D. Major Training Emphasis Prior to, During, and After Student Teaching Suggested for Each TEDCMP I Item by Each Respondent Group Together with the Mean Importance and Placement Ratings by the Total Group (Cont.).

Item No.	Total Group					Percent											
	Mean Rating		Percent			Undergrad. Ed. Psych.			Graduate Ed. Psych.			Student Teachers			Field Associates		
	Imp.	Pla.	P	D	A	P	D	A	P	D	A	P	D	A	P	D	A
101	2.57	2.13	13	61	26	16	68	16	14	43	43	10	65	25	11	67	22
102	2.32	2.11	20	49	31	16	55	29	21	43	36	25	45	30	17	53	30
103	2.57	1.57	58	26	16	58	23	19	46	36	18	65	20	15	64	25	11
104	2.75	2.38	5	47	48	3	49	49	4	36	60	10	60	30	3	61	36
105	2.72	2.35	8	56	35	3	55	42	7	61	32	15	55	30	11	53	36
106	2.69	2.28	8	55	37	13	48	39	14	32	54	0	60	40	6	77	17
107	2.80	2.05	16	63	21	29	58	13	11	50	39	15	65	20	8	78	14
108	2.81	2.16	8	67	25	10	64	26	0	54	46	10	80	10	14	67	19
109	2.43	1.99	30	40	30	45	26	29	32	43	25	35	25	40	8	64	28
110	2.47	1.80	40	40	20	55	32	13	18	46	36	60	25	15	22	61	17
111	2.57	2.19	18	52	30	26	48	26	18	39	43	20	60	20	8	59	33
112	2.49	1.79	43	37	20	45	36	19	36	32	32	65	15	20	25	56	19
113	2.86	2.01	23	52	25	29	45	26	18	50	32	30	55	15	16	56	28
114	2.59	2.21	16	46	38	23	42	35	7	50	43	20	40	40	14	53	33
115	2.61	2.26	15	43	42	13	48	39	14	36	50	25	35	40	8	53	39
116	2.53	2.00	29	41	30	36	45	19	21	43	36	45	20	35	14	56	30
117	2.25	2.03	28	41	31	35	42	23	21	36	42	35	30	35	22	50	28
118	2.55	2.17	17	48	35	23	45	32	7	54	39	20	45	35	20	44	36
119	2.41	1.88	37	39	24	55	29	16	21	47	32	40	30	30	25	56	19
120	2.60	2.11	26	39	35	35	39	26	11	46	43	25	35	40	19	50	31
121	2.79	1.54	60	26	14	58	23	19	43	32	25	85	10	5	53	39	8
122	2.65	1.68	44	44	12	39	45	16	36	36	28	50	50	0	50	44	6
123	2.56	1.94	33	39	28	29	39	32	14	43	43	40	35	25	50	39	11
124	2.67	2.18	15	51	34	10	58	32	7	39	54	35	60	5	8	47	45
125	2.84	2.08	8	76	16	16	71	13	7	54	39	5	90	5	3	89	8
126	2.88	2.14	12	65	24	23	51	26	7	50	43	10	65	25	8	78	14
127	2.76	1.83	37	42	21	42	42	16	25	25	50	60	30	10	22	70	8
128	2.84	2.07	12	68	20	19	62	19	14	57	29	10	75	15	6	77	17
129	2.76	1.98	18	67	15	26	64	10	7	64	29	25	55	20	8	89	3
130	2.70	2.07	13	66	21	26	58	16	7	54	39	15	70	15	6	80	14
131	2.70	2.14	14	57	29	16	55	29	7	47	46	25	50	25	8	75	17
132	2.34	2.17	26	31	43	23	42	35	25	18	57	40	20	40	11	50	39
133	2.69	2.11	14	65	21	19	65	16	14	39	47	20	60	20	3	75	22
134	2.61	2.24	13	49	38	23	42	35	11	32	57	10	70	20	8	53	39
135	2.60	2.07	28	36	36	23	35	42	28	36	36	30	30	40	33	39	28
136	2.57	1.97	22	58	20	35	55	10	14	43	43	10	75	15	28	61	11
137	2.59	2.15	13	58	29	23	48	29	11	46	43	5	70	25	14	67	19
138	2.66	2.13	23	40	37	19	39	42	14	25	61	40	35	25	20	58	22
139	2.73	2.59	8	24	68	6	10	84	4	28	68	20	25	55	3	31	66
140	2.56	2.14	25	34	41	19	39	42	21	25	54	40	35	25	22	36	42
141	2.83	2.06	27	39	34	32	32	36	25	36	39	30	40	30	22	47	31
142	2.13	1.97	41	20	39	39	16	45	32	25	43	50	10	40	44	28	28
143	2.60	2.36	14	35	51	16	35	49	11	18	71	15	40	45	14	47	39
144	2.74	2.50	11	27	62	19	32	49	11	14	75	10	25	65	6	36	58
145	2.59	2.43	13	55	32	19	32	49	7	21	72	20	30	50	8	33	59
146	2.85	2.29	14	42	44	13	39	48	11	21	68	20	60	20	14	44	42
147	2.65	2.63	5	27	68	6	29	65	0	25	75	10	20	70	3	33	64
148	2.74	2.36	14	31	55	16	35	49	11	29	60	25	30	45	3	50	47
149	2.85	2.25	17	41	42	23	42	35	11	25	64	30	40	30	6	53	41
150	2.86	1.98	28	45	27	36	45	19	14	32	54	50	35	15	14	67	19